Back to the Future

Director of Public Health
Annual Report 2012

Contents

Glossary

AIDS	Auto Immune Deficiency Syndrome
APHO	Association of Public Health Observatories
BCG	Bacillus Calmette–Guérin vaccine
CAMHS	Child and Adolescent Mental Health Services
CCC	Coventry City Council
CCG	Clinical Commissioning Group
CHD	Coronary Heart Disease
CHIP	Coventry Health Improvement Programme
COPD	Chronic Obstructive Pulmonary Disease
CRASAC	Coventry Rape and Sexual Abuse Centre
CVD	Cardiovascular Disease
DPH	Director of Public Health
DV	Domestic Violence
DVA	Domestic Violence and Abuse
GBH	Grievous Bodily Harm
HIV	Human Immunodeficiency Virus
HPV	Human Papilloma Virus
ISHS	Integrated Sexual Health Services
LEP	Local Enterprise Partnership
MECC	Making Every Contact Count
MSOA	Middle Super Output Area
NEETs	Not in Education, Employment or Training
NICE	National Institute of Clinical Excellence
NRT	Nicotine Replacement Therapies
OBOL	One Body One Life
OFSTED	The Office for Standards in Education, Children's Services and Skills.
ONS	Office for National Statistics
PHOF	Public Health Outcome Framework
QOF	Quality Outcomes Framework
RTA	Road Traffic Accident
STI	Sexually Transmitted Infection
UHCW	University Hospital of Coventry and Warwickshire
UNICEF	United National Children's Emergency Fund
WEMWEBS	Warwick-Edinburgh Mental Well-being Scale
WHO	World Health Organisation

Outline of the report

Part 1

In Part 1 of this annual report I contrast and compare the health of the Coventry population from 1970 to that of the Coventry of 2010. So, how have we faired in 40 years?

Population

The population has decreased in size from 335,230 to 315,700 (5.8%) in the forty year period, whilst the overall population of England has increased by 12.5%. However, since 2004 the population of Coventry has been steadily growing. The main increase has been in the over 20s and particularly older men (65+) and older women (75+). Coventry has a younger population than England, especially between the age of 15-29yrs (2 universities are located in Coventry).

Births

In 1970 there were 5,914 live births compared to 4,726 in 2010. The current birth rate is higher in Coventry than the rest of England; births have been steadily increasing since 2005.

Deaths

The total number of deaths in 1970 was 3,090. This fell to 2,661 in 2010. The greatest fall in the death rate during this period was in men: 1,696 to 1,302. The percentage of infant deaths dropped more than 3% to less than 1%. The proportion of deaths in the age group of 45-64yrs dropped from 24% to less than 16%.

The main causes of death in 1970 remain the same in 2010. They are **circulatory disease, cancer and respiratory disease.** Only the proportions have changed. In 1970 deaths from circulatory disease accounted for nearly half of all deaths in men and women. This proportion fell to 29% by 2010. Cancer accounted for 21% and 20% of all deaths in men and women, this increased in 2010 to 29% for men and 27% for women. Deaths from respiratory disease have remained constant during this period at 15% for men and have increased slightly for women from 14% in 1970 to 15% in 2010. Overall, life expectancy has improved for men and for women in Coventry over the past 40 years, but remains less than the rest of England.

What we have witnessed in this period is the success of better health care interventions around birth and cardiovascular disease (CVD) that have reduced the risk of premature mortality. Public Health has been at the forefront of assessing and evaluating the effectiveness of the health care interventions so that now we deliver many more interventions that have strong evidence of benefit and therefore we have a far greater emphasis on the early identification of risk factors and diseases, to allow treatments that prevent disease progressing. The public health role of the state has also proven to be a force for good in contributing to saving lives and improving life expectancy, through the introduction of legislation on the compulsory wearing of seat belts, crash helmets, and most recently tobacco control through the ban on

smoking in public places. The public's awareness regarding the importance of adopting healthy choices and behaviours has increased, and there is a growing evidence base of what works, for example smoking cessation, alcohol misuse reduction etc. However, this success means that the issue of chronic disease and the importance of lifestyle in later life are becoming more important. Part 2 of the report looks at how this affects the health of people in Coventry today.

Part 2

The second part of my report focuses on some of the key health challenges that the people of Coventry face today. We explore some of the key health issues in more detail, to understand what they really tell us about the health of the people of Coventry today, by using the following domains of the Public Health Outcomes Framework:

- Wider determinants of health
- Health Improvement
- Health Protection
- Health care public health

Firstly, we know that health outcomes in Coventry are either average or below average when compared to the rest of England. We also know that these inequalities exist in the city with a life expectancy gap of 12 years between the most affluent and deprived parts of the city.

Secondly, we know that inequalities and the broader social determinants of health are the main drivers of these poor outcomes in Coventry. These include: where you are born, where you go to school, whether you have a job or not, where you live, whether you have access to open space, whether you have access to services, and where you grow old.

Thirdly, we know that lifestyle choices and behaviours early on in a person's life impact on later life. Far too many people in the city die early from preventable illness and disease, most notably from cancer, heart disease, high blood pressure, stroke and lung disease and infectious diseases. We know we can do better in supporting people to take control of their lifestyle choices, be it smoking, alcohol, diet or exercise.

Finally, through the Marmot City work that the Local Authority, the Clinical Commissioning Group and other major stakeholders have committed to, there is a collective will to address some of these long standing inequalities, by looking at a whole society approach, across the course of one's life, from the cradle to the grave.

Part 3

The final part of the report looks into the future and identifies the key health challenges for the city. These are a combination of the broader social determinants of health e.g. education, transport, employment and those that can be regarded as the big public health issues of the 21st century that are connected to human behaviour in relation to lifestyle choices, preventable illness and early death, for example smoking, obesity, alcohol etc.

The evidence suggests that there is much we can do as a City to alleviate the impact on health, and I make a number of recommendations in the following areas:

- Giving every child born in Coventry the best possible start in life
- Improving educational attainment
- Providing good quality employment
- Designing for health improvement through good planning and transport systems
- Supporting behavioural change that empowers individuals and communities to make positive choices about their health.

Introduction

The title of this year's report 'Back to the Future' comes from the 1980s trilogy of films of the same name. The film tells the story of a young man's time travelling adventures to his past and to his future and how his fate and future is affected by events in his past.

I explore this theme in this year's report, from a public health perspective. The report is in three parts: the past, the present and the future. In the first part of the report we go back in time to the Coventry of over 42 years ago in 1970, to look at the health of the people of the city. This was just before the Public Health function left the council and moved into the NHS. Using information and data from the Annual Report of the Medical Officer from 1970, this year's report will compare and contrast the health of the city over the past 42 years with that of the health of the city today.

The second part of the report examines the health of Coventry today using the Public Health Outcomes Framework. This will provide the structure to tell the story of the health of Coventry today, telling us how the public's health has changed in the 40 years that the Public Health function was in the NHS. Over these 40 years inequalities remain important in defining the poor health status of many people in the city, and we explore this issue using two bus routes that traverse the city to tell this story.

Finally, the report will look to the future and identify the health challenges that affect children born in the city in 2012. We review the current evidence to understand what the city needs to focus on, to mitigate the impact of the broader social determinants of health, and identify what action will be required to ensure a healthy future for every child born in the city.

The report's theme is also true for the specialty of Public Health, which from its inception in the 19th Century up to 1974 was a core element of the local government in protecting and promoting the health of its population. The recent government reforms have led to Public Health coming back to its home in local government, to enhance the City Council's responsibility to promote and protect the city's health in the future.

This will be my final report as a Joint Director of Public Health, for the NHS and the City Council. This does not mean that my ties with the NHS will be severed; on the contrary working relationships and links with the NHS remain strong, as they are with all partners in the city. These strong ties are essential if we are to address some of the long standing health issues that remain in the city.

John Forde
Joint Director of Public Health for Coventry

Part 1: 40 years of health in Coventry. (Changes in public health between 1970 and 2010)

This section is based on the Annual Report of the Medical Officer from 1970, a short time before public health left the local authorities and moved to the NHS. As the latest death data, currently available nationally, is for 2010, it also allows a comparison of 40 years of health data. Some areas covered in the 1970s report are no longer public health's responsibility; likewise many important subjects that would always be included today (like HIV) were not covered because they were not an issue in 1970. Only those sections that were important in 1970 and are still important today have been compared.

Changes in epidemiology between 1970 and 2010

Introduction

The public health service was based in Local Authorities from its origin in the 19th century, and was responsible for major public health initiatives such as the provision of clean water and sewerage systems. The responsibility for public health passed to the NHS in 1974. In April 2013 public health departments move back to the Local Authorities from their current location in NHS Primary Care Trusts to become local governments' responsibility once more. In order to compare the changes that have happened during the intervening period, the 1970 Director of Public Health Annual Report has been retrieved from the archive. This has allowed the comparison of population, births and death rates in 1970 with those forty years later using 2010 data.

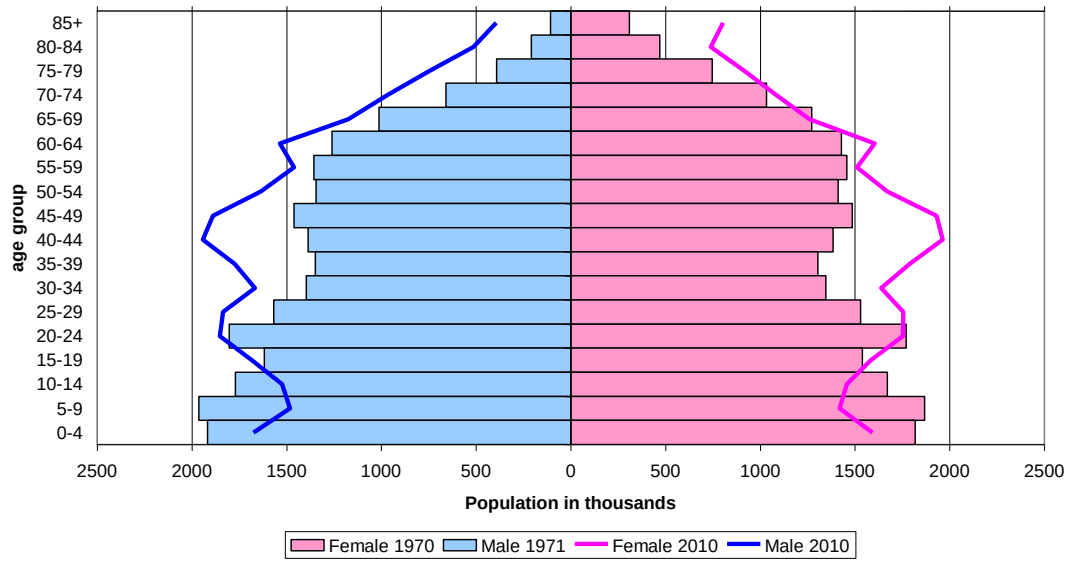
Population

In 1970 the Coventry resident population was 335,230 (midyear estimate) which is 20,000 more than the 2010 midyear estimate of 315,700. During this 40 year period there was a decrease of 5.8% in the Coventry population, while the population of England grew by 12.5%. It should be noted that the Coventry population is not currently declining but has been steadily growing since 2004.

The population structure in Coventry in 1970 is not available, but Figure 1.1 shows the difference between the age structure of the population of England between 1971 and 2010. Across the UK we are seeing an ageing population; the main increase has been in the population of people aged over 20 and particularly in older men 65+ and older women 70+. The number of children under the age of 15 has decreased in the period.

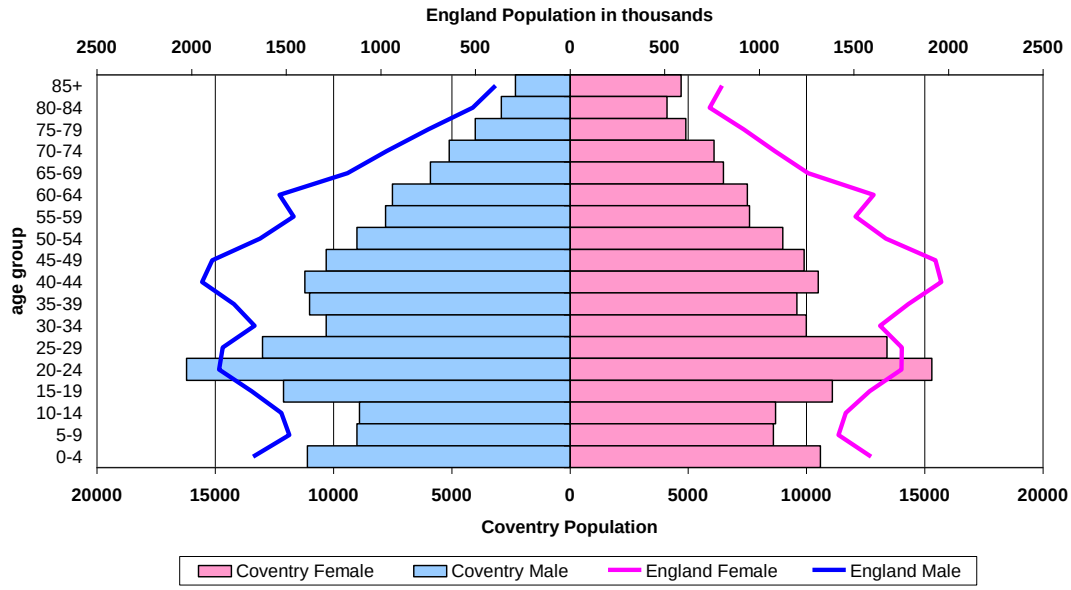
However, it should be noted that Coventry currently has a younger population structure than England. Figure 1.2 shows the difference between the Coventry and England population structures in 2010. (Note that the scale for the two populations is different). It is clear that Coventry has a much greater proportion of 15-29 year olds, mainly due to the two universities attracting people of this age group.

Figure 1.1: The age structure of the population of England in 1971 and 2010



Source: ONS

Figure 1.2: The age structure of the population of Coventry and England in 2010

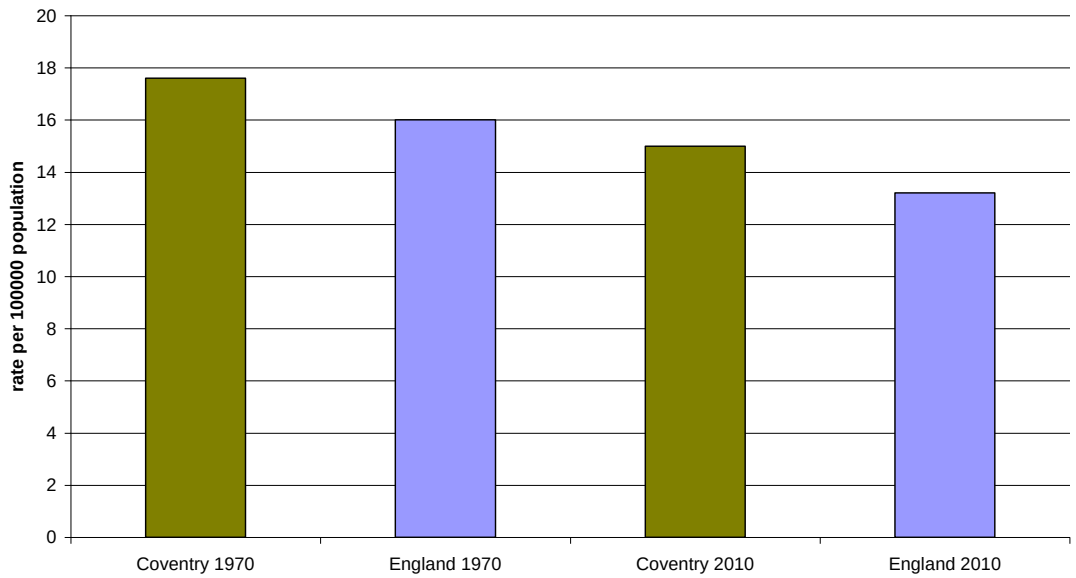


Source: ONS

Births

The birth rate in Coventry is higher than the rate for England and the difference has increased since 1970, as shown in Figure 1.3. There were 5,914 live births in 1970; however by 2010 this had dropped to 4,726. This is partly due to the smaller population in Coventry in 2010, but the crude birth rate has dropped from 17.6 per 1000 population in 1970 to 15.0 in 2010. This is similar to the drop in the birth rate for England (from 16.0 to 13.2). The birth rate in Coventry has been increasing since 2005.

Figure 1.3: Crude Birth rate for Coventry and England in 1970 and 2010



Source: ONS and Coventry Public Health Annual Report 1970

The Coventry population is young and dynamic; the birth rate is increasing. The total annual number of live births in Coventry has increased by 30.7% since 2001. A recent Health Needs Assessment of 0-2 year olds undertaken by Public Health, focused on understanding the reasons behind the increasing birth rate in Coventry, and its impact on antenatal services and services for children aged 0-2.

A considerable proportion (44%) of births occurs in the two most deprived wards in the city (St. Michaels and Foleshill). The new communities are more likely to be affected by deprivation than the general population, and over a third of the births (35%) in the city occur to women who are not born in the UK. The patterns of migration to the city are changing. This is reflected in the birth statistics, which demonstrate that births to European born mothers have more than doubled in the past five years. Furthermore, ONS is projecting increases in the pre-school and school-aged cohorts up to 2020. These changes in the population place considerable demands on the future service delivery. This is further affected by the current financial climate, which is likely to lead to changes in the way the services are provided.

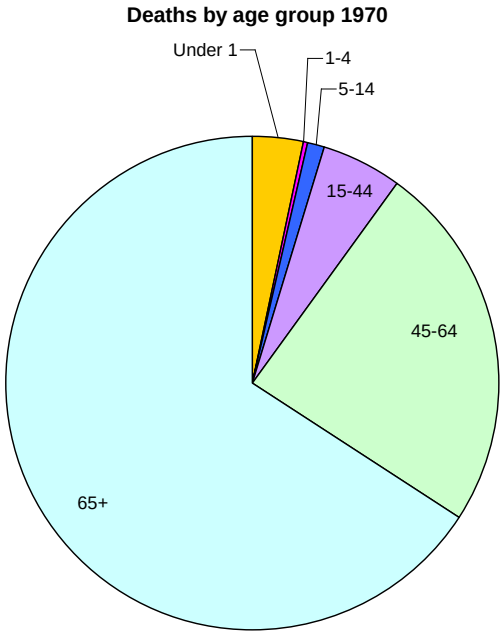
Deaths

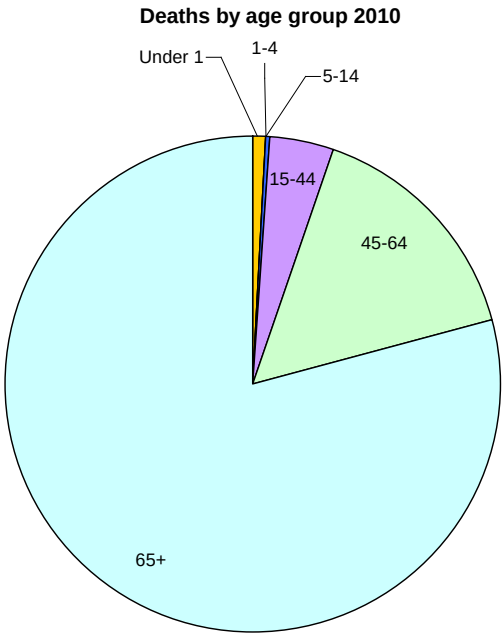
There has also been a fall in the crude death rate from 9.2 per 1000 population in 1970 to 8.4 in 2010. There are a number of plausible explanations for this:

- Part of this decline in the number of deaths is because Coventry now has a smaller population than in 1970.
- Coventry has a young population compared with the West Midlands and England.
- People are living longer; there has been a general fall in the proportion of deaths happening in the younger age groups between 1970 and 2010. The percentages of deaths in the over 65s increased from under 66% to more than 79% and the proportion of deaths in the 45-64 year olds fell from 24% to less than 16%.
- Coventry's fertility rate is higher than the West Midlands and England and the percentage of infant deaths (in children under 1 year old) dropped from more than 3% of total deaths to less than 1%.

The drop in infant deaths, due to improvements in midwifery and obstetric care, in this period is important. The proportions are shown in Figure 1.4

Figure 1.4: Change in the age at death between 1970 and 2010





Source: ONS and Coventry Public Health Annual Report 1970

Main causes of death

The main causes of death in Coventry are **circulatory disease**, **cancer,** and **respiratory disease.** This was true in 1970 and is still true in 2010, however the proportions have changed. The main causes of death for men (shown in figure 1.5) in 1970 and 2010 were:

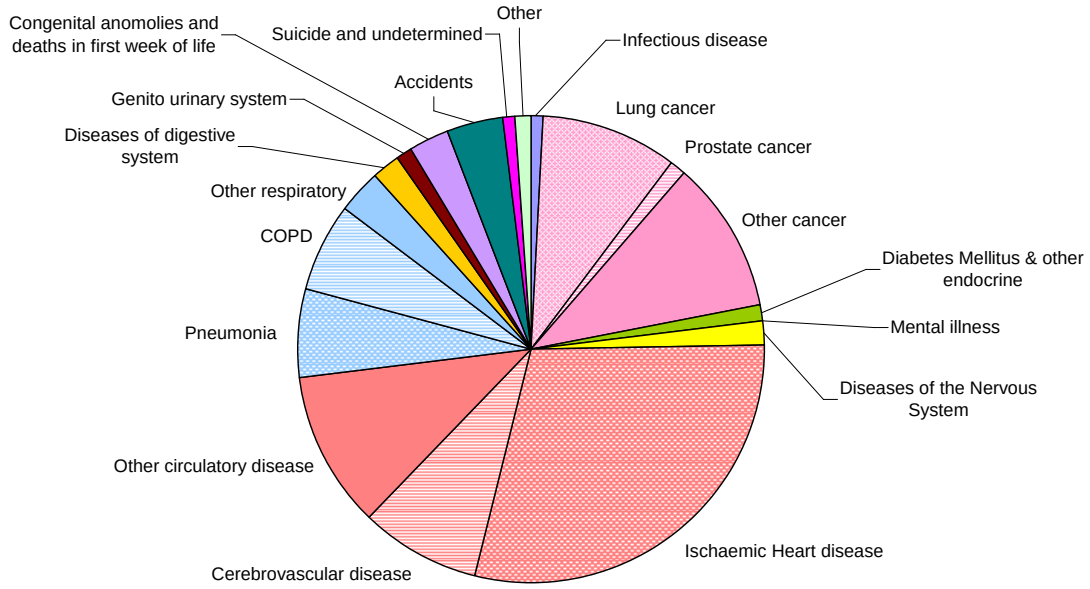
- **Circulatory disease,** which was responsible for half of all deaths (48%) in 1970 but by 2010 this had fallen to less than a third (29%).
- **Cancer** accounted for a fifth (21%) of male deaths in 1970 but by 2010 it had risen to 29% (almost a third).
- **Respiratory disease** has continued to account for 15% of male deaths.

There has been a 13 fold increase in the proportion of deaths due to mental illness from 0.2% to 2.6%; a fourfold increase in male deaths due to diseases of the digestive system from 1.7% to 6.6%, largely due to liver disease; a doubling of male deaths due to infectious disease (from 0.7% to 1.5%) and diseases of the nervous system (from 1.7% to 3.5%) mainly due to Alzheimer's and Parkinson's disease.

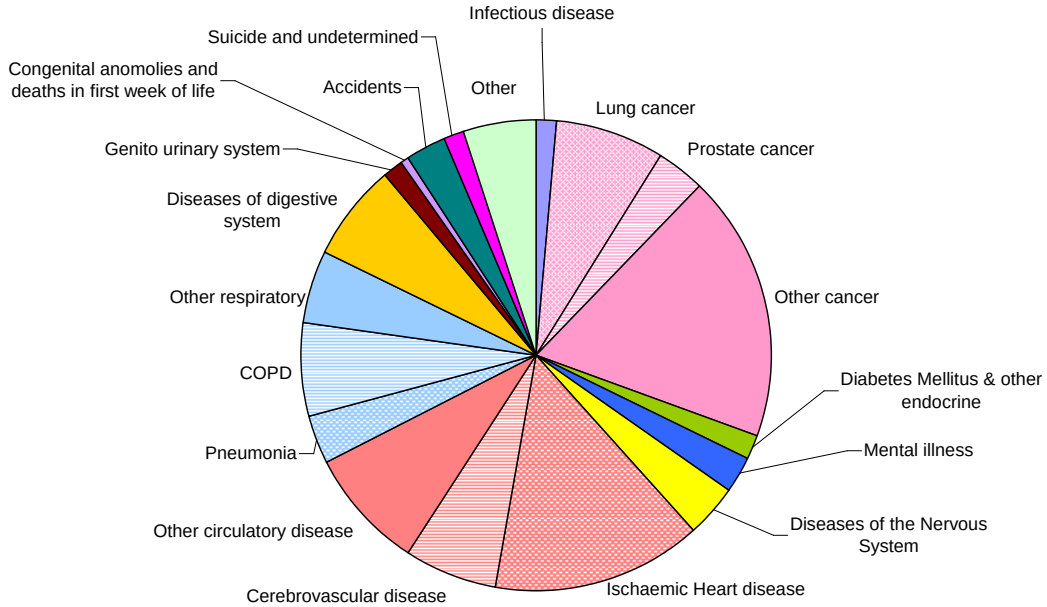
There has been a fivefold decrease in the number of male deaths in the first week of life and due to congenital anomalies (from 2.7% to 0.5%). This is due to a number of factors that include better antenatal care and improved survival of premature and high risk babies, due to advances in medical science and technology, for example neonatal intensive care.

1.5: Main causes of death in males in 1970 and 2010

Main causes of death in males 1970



Main causes of death in males 2010



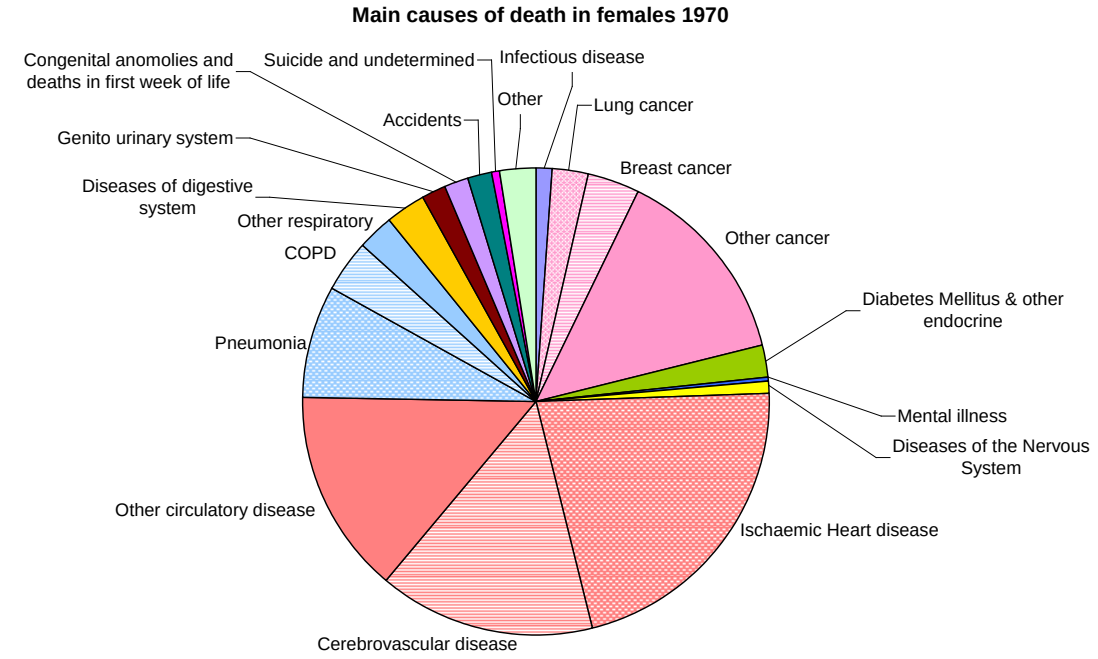
Source: ONS and Coventry Public Health Annual Report 1970

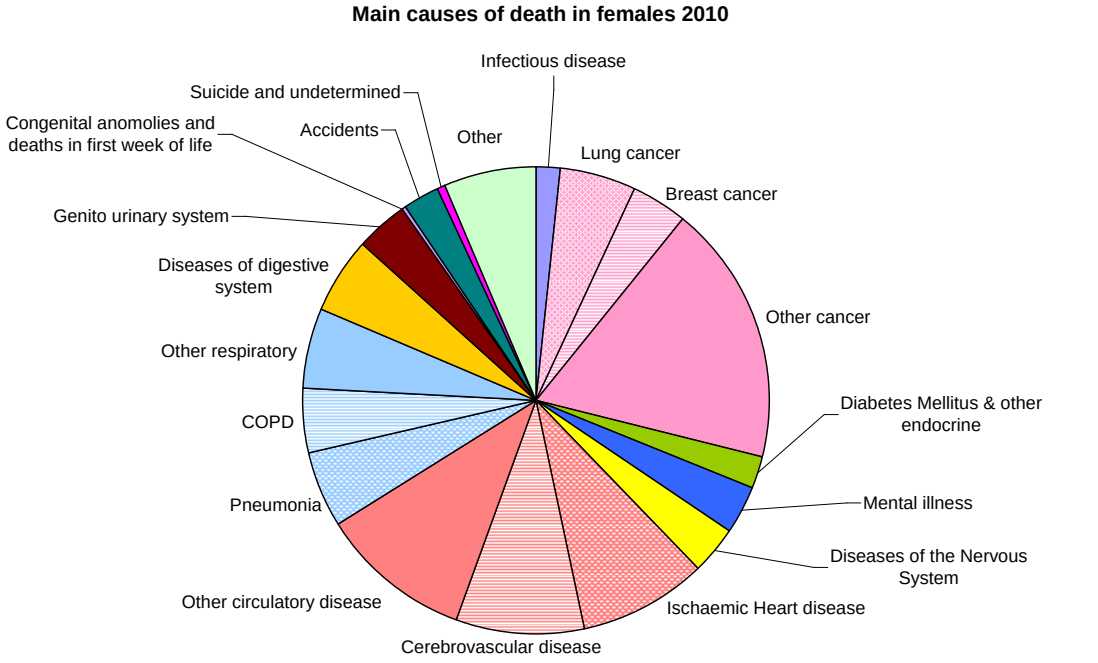
The main causes of death in females are **circulatory disease, cancer** and **respiratory disease** as shown in figure 1.6:

- **Circulatory disease** was the main cause of death for females in 1970 and was responsible for more than half of all deaths (51%), but by 2010 this had fallen to less than a third (29%).
- **Cancer** accounted for a fifth (20%) of all female deaths in 1970 but this had risen to more than a quarter (27%) in 2010.
- **Respiratory deaths** had only increased slightly from 14% to 15%.

There has been a 16 fold increase in deaths due to mental illness (from 0.2% to 3.2%), a fourfold increase in the number of deaths due to disease of the nervous system (from 0.8% to 3.3%) and a doubling of deaths due to disease of the renal system (from 1.5% to 3.8%). There has also been an increase in deaths from diseases of the digestive system (from 2.9% to 5.2%) and an increase in deaths due to accidents (from 1.7% to 2.5%). There has been a 17 fold reduction in the proportion of female deaths in the first week of life and due to congenital anomalies (from 1.7% to 0.7%).

Figure 1.6: Main causes of death in females in 1970 and 2010





Source: ONS and Coventry Public Health Annual Report 1970

Circulatory disease mortality

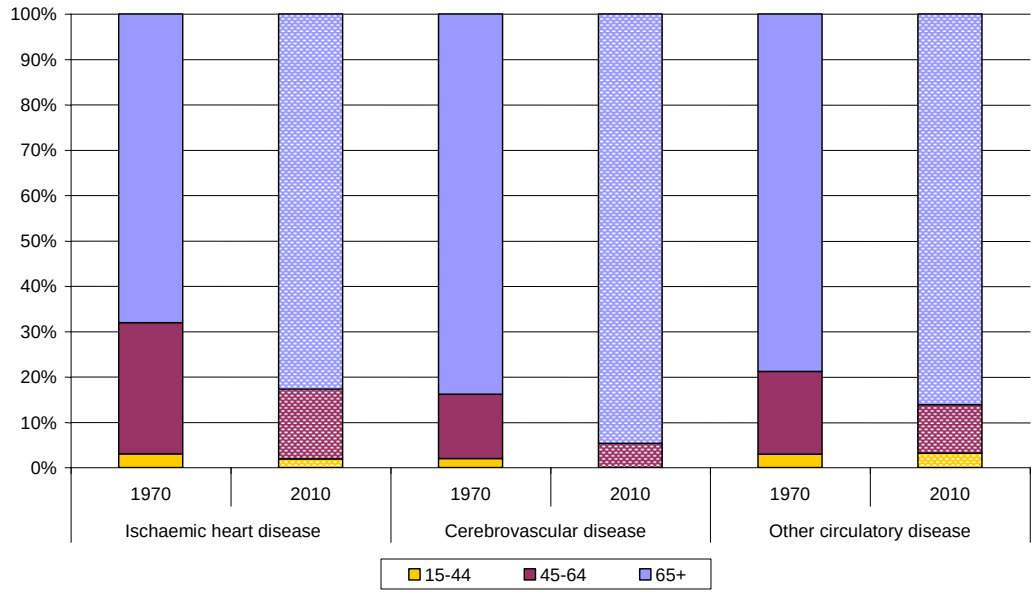
The most noticeable change in cause of death for both men and women, between 1970 and 2010, was in deaths caused by circulatory disease. The actual numbers dropped from 817 to 381 for males (a 53% decrease) and from 711 to 388 for women (a 45% decrease). It should be noted that the population reduced by less than 6% in the same period. Within the broad category of circulatory disease, the largest change came in the proportion of deaths due to ischaemic heart disease (also known as coronary heart disease), which halved for both men and women (from 29% to 15% for men and 22% to 9% for women). Cerebrovascular disease (or stroke) reduced by a quarter in men (from 9% to 7%) but halved in women (from 15% to 9%). Other causes of circulatory death included chronic rheumatoid heart disease, which used to account for 2% of all deaths in 1970, but has reduced 16 fold to become a rare cause of death in 2010 and hypertensive disease which had an overall reduction of 25%, but for males it fell by 75% between 1970 and 2010.

These changes have occurred for a number of reasons. Advances in medical science and improved primary and secondary care for a number of these conditions have all made a significant positive impact. We now have much stronger evidence for those medical interventions that work. In heart disease, for example, this would include the following developments:

- The public health role of central government has played its part, with the introduction of legislation on tobacco control and the smoking ban in public places.
- The improvement in the quality of care through the development of National Service Frameworks, National Institute of Clinical Excellence (NICE) standards and guidance and the Quality Outcomes Framework (QOF) in primary care.
- The improved clinical management of high blood pressure through the introduction of new drugs such as beta blockers.
- Improved surgical techniques for coronary by-pass surgery and valve replacement and the use of less invasive techniques, such as angioplasty and stents.
- The advent of statins in the management of high cholesterol.
- Health education has played a role in highlighting the risks of a poor diet, lack of exercise, smoking, alcohol etc. to the population.
- The advent of evidence based lifestyle interventions, for example smoking cessation.

The change in circulatory disease mortality by age group is shown in Figure 1.7. There has been a marked decrease in the proportion of deaths in the younger age groups for ischaemic heart disease, cerebrovascular disease and other circulatory disease, with the most marked reduction in ischaemic heart disease.

Figure 1.7: The change in age of mortality between 1970 and 2010 for various circulatory diseases.



Source: ONS and Coventry Public Health Annual Report 1970

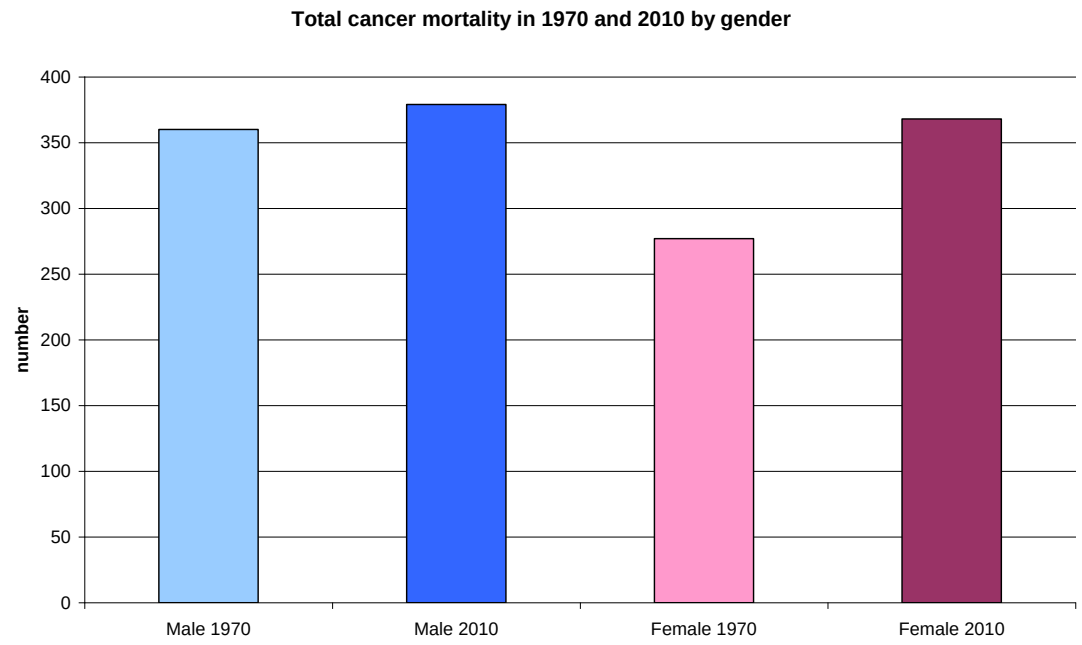
Cancer mortality

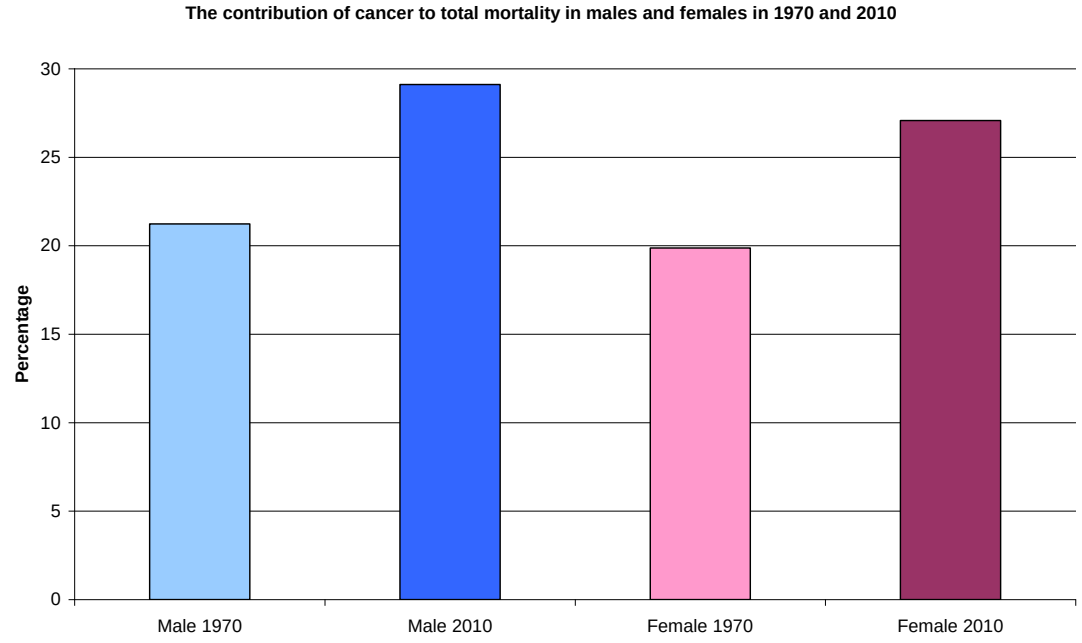
The actual numbers of people dying from cancer increased in numbers between 1970 and 2010. The increase in men was from 360 to 379, each year, which because of the decrease in population size meant an increase in proportion from 21% to 29%. For women, cancer deaths increased from 277 to 368 and increased in proportion from 20% to 27% of total deaths. These numbers and proportions are shown in Figure 1.8.

Lung cancer deaths have decreased for men, from 10% of all deaths in 1970 to 7% in 2010. However, for women there has been a more than doubling of deaths from 2% in 1970 to 5% in 2010. These changes reflect the historic changes in smoking patterns in men and women. Prostate cancer has trebled in men from 1% to 3% of all deaths and for women there has been an increase in breast cancer deaths from 3.5% to 4% despite the much improved survival rates for this cancer.

This increase in the number and proportion of cancer deaths is partly due to the older population structure in 2010 compared to 1970, because cancer incidence increases with increasing age. The proportion of cancer deaths by age group is shown in Figure 1.9 for all cancer, lung, breast and other cancers, and in each case the proportion in the oldest age group (65+) increases in 2010 compared to 1970.

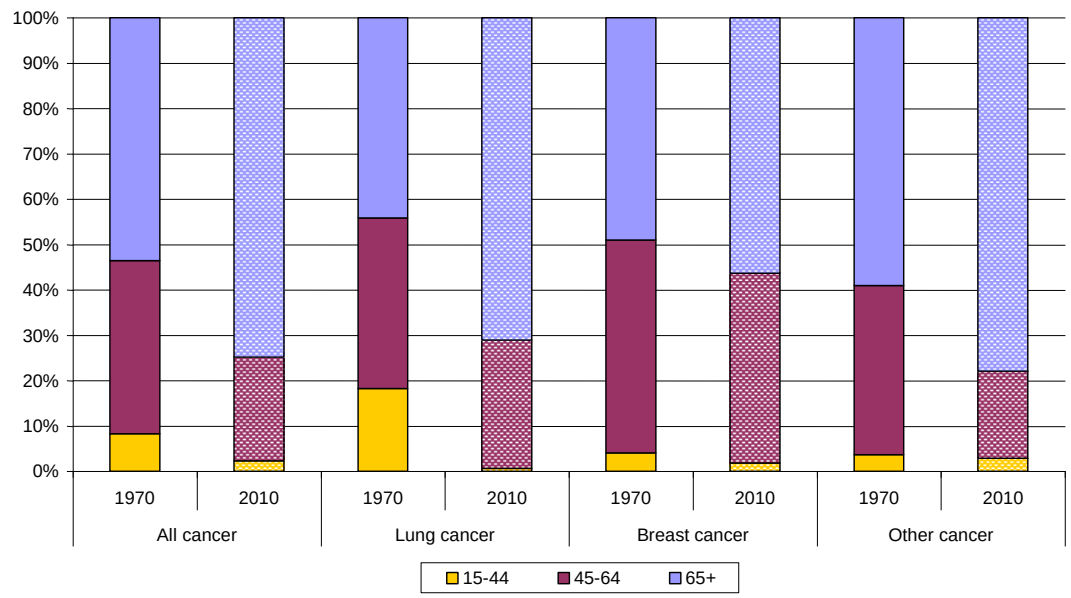
Figure 1.8 Changes in the number and proportion of cancer deaths in Coventry between 1970 and 2010 by gender





Source: ONS and Coventry Public Health Annual Report 1970

Figure 1.9: Changes in the percentage of cancer death by age group between 1970 and 2010 by cancer type



Source: ONS and Coventry Public Health Annual Report 1970

Cancer is relatively rare in childhood with 1 in 500 children between 0-14 years of age likely to develop some kind of cancer. Each year, 1,500 children nationally will develop cancer, accounting for 0.5% of all cancers diagnosed in all ages. There are 300 deaths each year in the UK from childhood cancers.

Since 1970 there has been a huge improvement in the cancer survival rate of young children (0-14yrs olds). This is down to improvements in treatment and care. It means that for every 10 children diagnosed with cancer almost 8 (78%) will survive for 5 years or more. In the 1960s and 1970s this figure was as low as 3 in 10 surviving five years or more (28%).

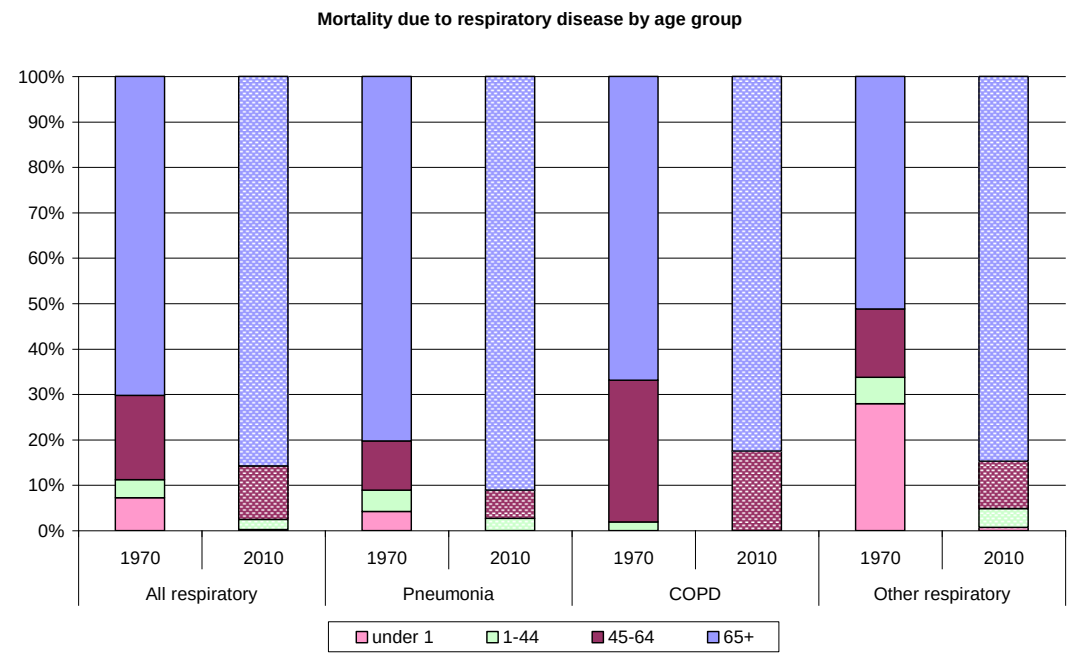
Respiratory disease mortality

The proportion of deaths due to respiratory disease remained fairly constant for men with a minimal reduction from 15.4% in 1970 to 14.8% in 2010, however for women there was a small increase from 13.7% to 15.2%. During this period pneumonia halved from 6% to 3% in men and decreased from 8% to 5% in women. COPD increased from 5.0% to 5.4% of all deaths, and other respiratory disease deaths increased from 2.8% to 5.4% of all deaths.

Although the numbers of deaths due to respiratory disease have remained fairly constant, these deaths are now occurring mainly in older groups and from diseases which we associate with older age e.g. COPD. This is illustrated in the change in the age distribution of deaths from respiratory disease between 1970 and 2010 with an increased proportion of the deaths in the oldest age group for all respiratory disease, pneumonia, COPD and other respiratory disease as shown in Figure 1.10.
There is an important fall in the proportion of deaths in the under 1 age group. This has seen a reduction from 4% of pneumonia in 1970 to less than 1% in 2010. This

can be accounted for in advances in healthcare and technology (for example new immunisations, intensive care etc.).

Figure 1.10: Changes in the percentage of respiratory deaths by age group between 1970 and 2010



Source: ONS and Coventry Public Health Annual Report 1970

Infectious disease mortality

Infectious disease is not a major cause of death, as it accounted for only 0.9% of deaths in 1970, though this increased to 1.6% in 2010. However there have been some changes in the types of infectious diseases represented in this overall figure. Tuberculosis mortality decreased 4 fold during the period but those for 'other infectious disease' increased 9 fold. This was mainly due to septicaemia which was not mentioned in the 1970 report and HIV was not identified until the 1980s. The pattern of disease by age group also changed greatly as only 27% of the infectious disease mortality was in the oldest group, 65+, in 1970 but this had increased to 71% in 2010.

Liver disease mortality

Chronic liver disease mortality only accounted for 0.4% of all mortality in 1970 but by 2010 this had increased to 2%. The proportion has quadrupled in the 40 year period. There are twice as many deaths among males than females. The increase in cirrhosis is likely to be linked to the increase in alcohol consumption since the 70s.

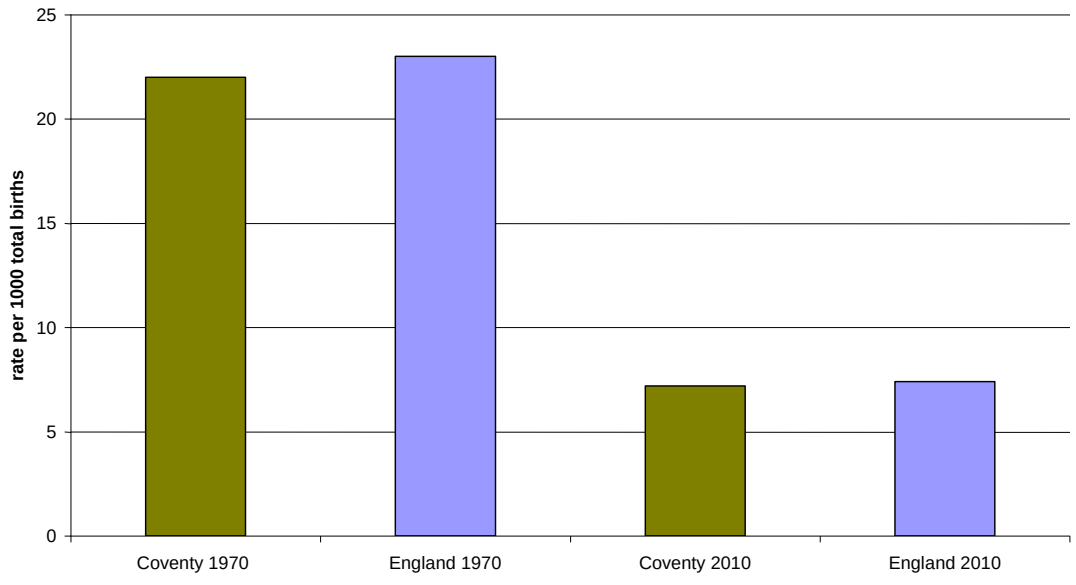
Perinatal and infant mortality

- Perinatal mortality is the number of stillbirths and deaths in the first week of life per thousand total births.
- The infant mortality rate is the numbers of deaths in the first year of life per thousand live births (i.e. it does not include stillbirths).
- Deaths in the first week of life count towards both of these rates.

Deaths due to congenital anomalies and perinatal mortality accounted for 2% of total deaths in 1970 but by 2010 this had fallen to 0.3%, which is a more than 7 fold decrease. Congenital anomalies mortality can occur at any age, but it most frequently occurs as a cause of death in the young, often associated with stillbirth, so it mostly contributes to the perinatal mortality rate and the infant mortality rate. It less frequently contributes as a cause of death to the mortality rates at older age groups.

Perinatal mortality rates have dropped from 22 per 1000 births in Coventry in 2010 to 7.2 per 1000 in 2010, a 3 fold decrease. Figure 1.11 shows perinatal mortality rates for Coventry compared to England for both periods, and in both cases Coventry has a slightly lower rate.

Figure 1.11: Perinatal mortality rate in Coventry and England in 1970 and 2010



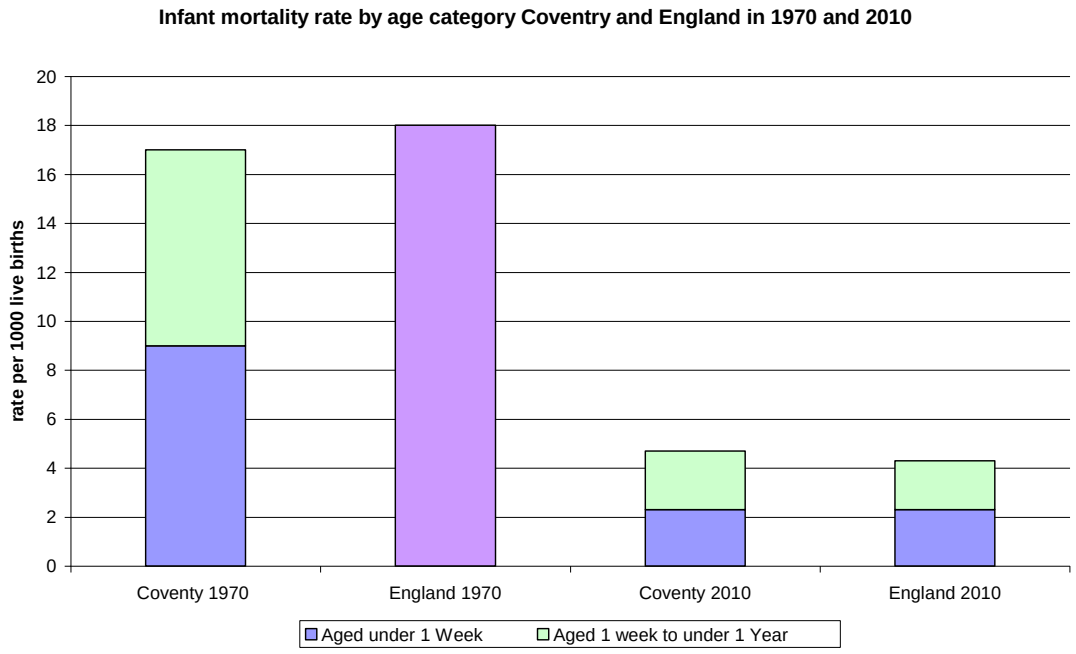
Source: ONS and Coventry Public Health Annual Report 1970

The infant mortality rate is shown in Figure 1.12, which also illustrates the contribution that deaths within the first week of life made to the overall rate. The infant mortality rate for Coventry in 1970 was 17 per 1000 live births, which was slightly below the national rate of 16 per 1000, and this dropped to 4.7 in 2010, which is higher than the national rate of 4.3 per 1000 but not significantly so. The decrease in infant mortality between 1970 and 2010 is statistically significant[1], and there has been nearly a fourfold decrease in the 40 year period. The early infant death rate (in

[1] Statistical Significance: A mathematical technique to measure whether the results of a study are likely to be true and not due to chance. When a statistic is significant, it simply means that you are very sure that the statistic is reliable.

the first week of life) decreased from 9 per 1000 live births in 1970 to 2.3 per 1000 in 2010, a more than threefold decrease.

Figure 1.12: The changes in the infant mortality rate (under 1 year and under 1 week) between 1970 and 2010, in Coventry and England



Source: ONS and Coventry Public Health Annual Report 1970
NB data for infant mortality in babies aged under 1 week was not available for 1970

This success story is due to improved health care in pregnancy and early childhood health; one of the first areas where the UK developed a detailed evidence base of the effectiveness of health care interventions. However, we still have a higher infant mortality rate than England and this will require a redoubling of efforts.

Infant and perinatal mortality are associated with social deprivation and infants born to mothers in deprived wards have consistently higher infant mortality rates than those living in other areas. In addition, infant and perinatal mortality are influenced both by the quality of care provided by the health services and by the wider social determinants of health. Looking at the data the areas we need to focus on now are:

- High quality, culturally appropriate antenatal care that is accessible as early as possible.
- Stop smoking programmes in early pregnancy.
- Initiation and maintenance of breastfeeding.
- Development of a high quality integrated universal service model of delivery from pre-birth to pre-school that focuses on supporting and working with parents.
- Well-targeted access to children's centre programmes such as Sure Start.
- Further reduction in child poverty.
- Closing the gap in educational qualifications.
- Improving employment opportunities and child care facilities for deprived communities.

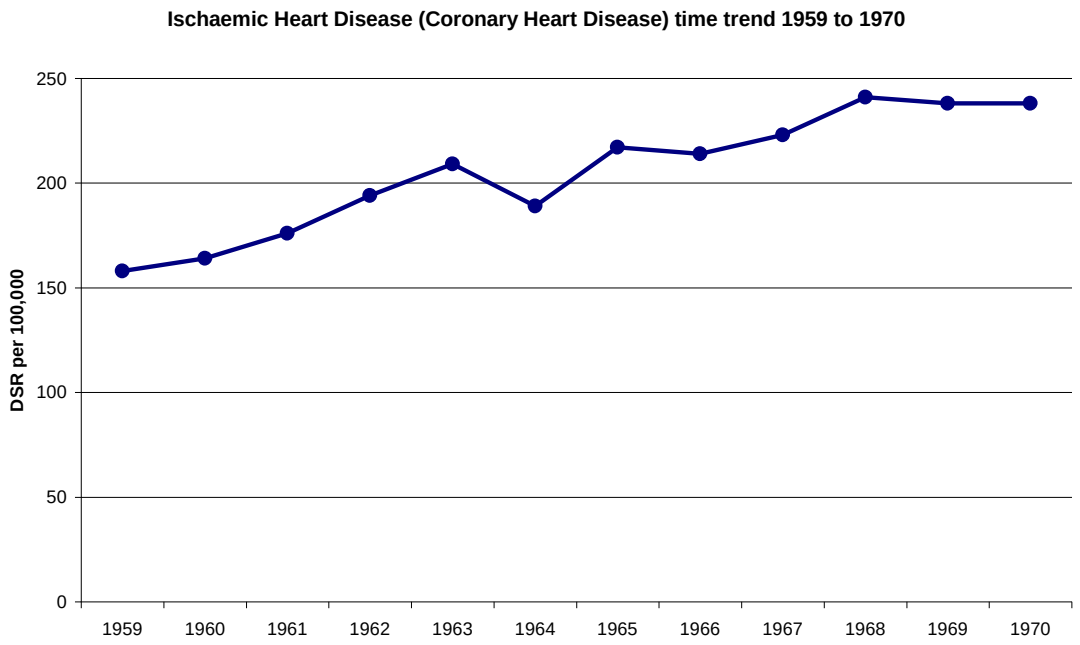
Disease

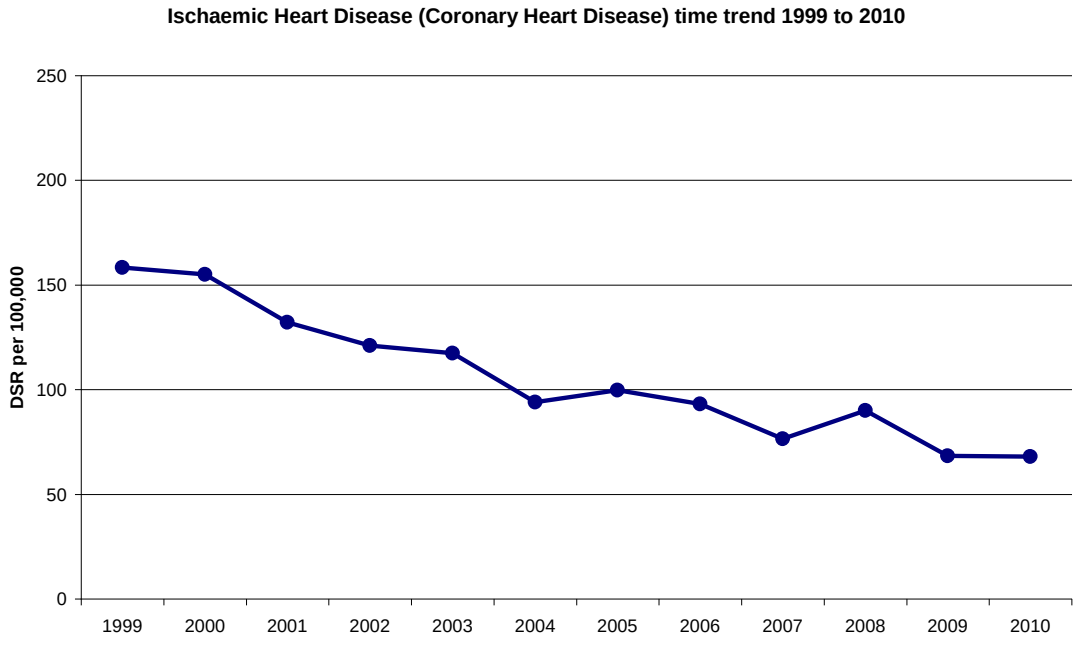
In the 1970 annual report the section devoted to infectious disease was four to five times larger than that for non-infectious disease. The 1970s report acknowledged the rise in the importance of chronic diseases, and ischaemic heart disease (coronary heart disease), lung cancer and chronic bronchitis were specifically mentioned. In recent public health annual reports, the vast majority of the report has focused on chronic disease, though infectious disease remains an important part of public health and our ability to respond rapidly and effectively to threats such as influenza, measles and emerging infectious diseases remains vital.

Ischaemic Heart disease

Ischaemic heart disease is now more often referred to as coronary heart disease (CHD). It was a chronic disease that was rapidly increasing as a cause of death in 1970, and to demonstrate this a time trend was produced in the report showing the increasing rate of death year on year for the ten years preceding 1970. This trend and the ten years preceding 2010 are shown in Figure 1.13 and drawn to the same scale. It can be seen that this chronic disease is currently decreasing as a cause of death, largely due to decreased smoking and improved health care including preventive measures given to those at most risk of heart disease such as statins and blood pressure control.

Figure 1.13: Comparing the directly standardised death rate per 100,00 population in Coventry for the 11 year periods 1959-70 and 1999-2010





Source: ONS and Coventry Public Health Annual Report 1970

Infectious disease

Childhood Diseases

Measles is a serious infectious disease of childhood. The number of cases reported in 1970 was 3,121, compared to 24 cases in 2010. This is a decrease from a crude rate of 931 per 100,000 to just 8 per 100,000 which is a more than 100 fold decrease. The measles vaccination only became available in 1968, and so by 1970 there were still a lot of unprotected children in the population. It should be noted that among the 3,121 children with measles in Coventry in 1970, 88 required hospital admission and 2 children died.

There were 140 cases of whooping cough reported in Coventry in 1970 (a crude rate of 42 per 100,000) compared to no cases in 2010. There were 110 scarlet fever cases in 1970 compared with 24 in 2010, a more than fourfold reduction from a crude rate of 33 to 8 per 100,000.

Other diseases

Meningitis is often associated with childhood but can happen at any age. There were 25 reported cases of meningitis in 1970 and 11 in 2010, although this is a 2 fold reduction from 8 to 4 per 100,000, the small number of cases mean that the difference is not statistically significant**.**

Tuberculosis (TB) was decreasing nationally at the time that the 1970 report was written, though it had increased locally in Coventry. TB has decreased from 62 per 100,000 population (208 cases) in 1970 to 19 per 100,000 (61 cases) in 2010, which is a 3 fold reduction. However vigilance is required as TB remains a concern in the city today, as discussed in part 2 of this report.

In 1970 dysentery was a considerable problem in Coventry. There were 122 cases, which was considerably less than in 1968 when 704 cases were reported. A description of the disease is shown in the box below which demonstrates the problems of spread by contamination. There was a whole section on hygiene as a means to prevent the spread of dysentery in the 1970 report. There were no cases of dysentery reported in 2010; however it ceased to be a notifiable disease in April 2010. There were less than 6 cases reported in 2009 when it was still notifiable, so it is a much less common disease now.

> Bacillary dysentery is primarily a human disease often acquired by drinking water contaminated with human faeces or by eating food washed with contaminated water. Man is the only significant reservoir of Shigella infection. In the UK most cases are associated with foreign travel; however, there are occasional reports of UK-acquired cases associated with sexual transmission, predominantly among men who have sex with men[2]

Food poisoning rates have actually increased between 1970 and 2010, with the greatest increase being those cases classified as ‘Food poisoning otherwise

[2] Health Protection Agency http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/Shigella/

ascertained', which have risen from 5 per 100,000 to 55 per 100,000. As it is possible that this change is due to reporting processes that were not available in 1970 it may be best just to compare formally notified food poisoning. This has increased from 16 to 28 per 100,000 in the 40 year period, almost doubling.

Health improvement

Health improvement has always been an important part of public health. The approach to health improvement has changed radically in the 42 years since the Medical Officer's annual report of 1970. This section compares current practice with that described in the 1970 report.

Immunisations

The Medical Officer's annual report 1970 had a section on vaccination, which included the following vaccines: Diphtheria, Pertussis, Tetanus (DPT) and Polio; Measles; Smallpox; and Yellow Fever. The section on Yellow Fever was just for travellers. The current vaccine-preventable diseases are listed in the box below; this is a much longer list. Those with a star are not given routinely to all members of the population: chickenpox is given to non-immune health care workers, HPV (Human Papilloma Virus) to girls only to prevent cervical cancer in later life, influenza routinely to over 65s and people in high risk groups, and BCG (Bacillus Calmette-Guérin) vaccine to protect babies born in high risk groups from TB.

Current vaccine preventable diseases[3]
Chickenpox*
Diphtheria
Haemophilius influenzae Type B
Human papillomavirus (HPV)* - cervical cancer and genital warts
Influenza*
Measles
Meningococcal (Meningitis)
Mumps
Polio
Pneumococcal disease
German measles (Rubella)
Tetanus
Tuberculosis*
Whooping cough (Pertussis)

Small pox was one of the routine vaccinations in 1970, with 2,791 primary vaccinations plus 73 revaccinations. Vaccination for smallpox is no longer carried out, since 1980 when the disease was declared eradicated by the World Health Organisation, see box below:

Smallpox is an acute contagious disease caused by the variola virus. Following a worldwide vaccination campaign, smallpox was declared eradicated from the world in 1980; the last naturally acquired case was in Africa in 1977. There are no animal reservoirs for the infection[4]

[3] Health Protection Agency
http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/VaccinationImmunisation/
[4] Health Protection Agency
http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/Smallpox/

The 1970 report stated that the appointment system for Diphtheria/ Pertussis/ Tetanus (DPT) and Polio vaccinations had been computerised since 1966, but commented that there was only a 50% uptake of these appointments. The DPT and polio vaccination was in 3 doses, as it is today, and the report listed 3,557 completed DPT and 3,717 completed polio in 1970. Using the number of births in 1970, as an approximate denominator this, indicates that 60% of the cohort completed their primary DPT course and 63% their polio. The equivalent vaccination in 2010 is the Diphtheria, Tetanus, Polio, Pertussis and Hib (Haemophilius influenzae Type B). The vaccination is abbreviated to 'DTaP/IPV/Hib'. In the financial year 2010/11 the percentages completing the DTaP/IPV/Hib vaccination by their 2nd birthday in Coventry was 98.5%, a considerable improvement.

In 1970 there were 2,882 primary measles vaccinations in Coventry, which using the births for that year as a denominator means that 49% of the baby population (aged 1 - 2y) received the measles vaccination that year. The measles vaccination had only become available in 1968, so it is possible that it had not become a routine baby vaccination at this point in time. We now give the Measles, Mumps and Rubella (MMR) vaccination to this age group and 95% of Coventry's children completed the two dose MMR vaccination by their 5th birthday in the year 2010/11.

The list of diseases that can be prevented by vaccination has increased vastly between 1970 and 2010. The percentage uptake of vaccinations has also increased substantially with DPT and Polio vaccination uptake increasing by a third, and the measles vaccination uptake almost doubling within the period. Vaccination remains one the most simple and cost effective ways of protecting the population from preventable illness and disease.

Sexually Transmitted Infections

Prior to the invention of modern medicines, sexually transmitted infections were generally incurable, and treatment was limited to treating the symptoms of the disease. The first voluntary hospital for venereal diseases was founded in 1746 at London Lock Hospital. Treatment was not always voluntary, in the second half of the 19th century the Contagious Diseases Act was used to arrest suspected prostitutes.

The first effective treatment for a sexually transmitted infection (STI) was salvarsan, a treatment for syphilis. With the discovery of antibiotics, a large number of sexually transmitted diseases became easily curable, and this, combined with effective public health campaigns against STIs, led to a public perception during the 1960s and 1970s that they have ceased to be a serious medical threat. During this period, the importance of contact tracing in treating STIs was recognised. By tracing the sexual partners of infected individuals, testing them for infection, treating the infected and tracing their contacts in turn, STI clinics could be very effective at reducing infections in the general population.

In the 1980s, first genital herpes and then Auto Immune Deficiency Syndrome (AIDS) emerged into the public consciousness as sexually transmitted infections that could not be cured by modern medicine. AIDS in particular has a long asymptomatic period, during which time the Human Immunodeficiency Virus (HIV), which causes AIDS, can replicate and the disease can be transmitted to others. This is followed by a symptomatic period, which leads rapidly to death, unless treated. Recognition that AIDS threatened a global pandemic led to public information campaigns and the development of treatments that allow AIDS to be managed by suppressing the replication of HIV for as long as possible. Contact tracing continues to be an important measure, even when diseases are incurable, as it helps to reduce the spread of infection.

Comparison with Annual Report 1970

Since the Annual Report of 1970 there has been a considerable change in both the epidemiology and terminology of STIs. In the 1970 annual report the term ‘venereal disease’ was used to describe what we call today sexually transmitted infections. People visited ‘special clinics’ for treatment where now they attend Integrated Sexual Health Services (ISHS) to receive advice on contraception, screening and treatment.

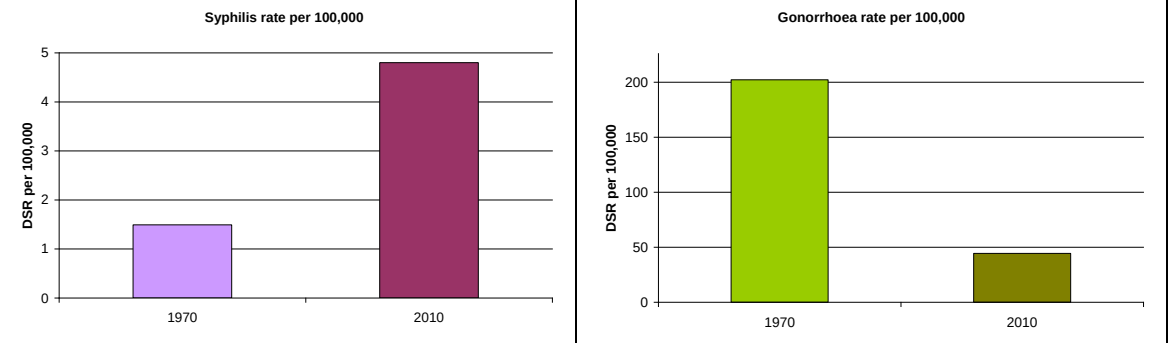
Clinic Attendances

In 1970 a total of 2,486 people attended the ‘special clinic’ for treatment of which 1,613 were males and 873 female. Of these 2,126 were resident in Coventry, 278 county residents and 82 residents in other counties. Since 1970 the number of people who attend sexual health services has increased significantly. In 2010/11 15,730 people attended Coventry and Warwickshire ISHS, of these 10,369 were first attendances. Of these 15,404 were resident in Coventry and 326 were from other areas.

Sexual Health Profile

Due to the changes in both the epidemiology of STIs and in reporting, it is only possible to compare the rates of gonorrhoea and syphilis. Many of the STI monitored now were not reported on in 1970. Today we monitor the transmission of not only syphilis and gonorrhoea but also chlamydia, genital herpes, genital warts, and HIV. Figure 1.14 below shows the difference in the rates of syphilis and gonorrhoea in 1970 and 2010. Although the rates of syphilis are small there was a significantly higher rate in 2010 compared to 1970, whereas the rates of gonorrhoea were considerably higher in 1970 compared to 2010. We continue to monitor this data to understand if this is a real trend or just an anomaly.

Figure 1.14: Change in rates of syphilis and gonorrhoea between 1970 and 2010



Source: HPA and Coventry Public Health Annual Report 1970

Smoking Cessation

In 1970 the truth about the harmful effects of smoking cigarettes was beginning to filter through into the public's consciousness. The Royal College of Physicians report in the early 1960s, which linked smoking to cancer, had received massive publicity and more and more people were taking the decision to try and quit. However, while smoking prevalence was starting to fall, national figures indicated that over half of the UK adult population continued to regularly smoke tobacco.

At this time Coventry was embarking on one of its first city-wide campaigns to raise awareness about the health risks of smoking. The local press were encouraged to support the campaign and were asked to highlight the 'unpalatable aspects of tobacco'. Thousands of stop smoking posters and leaflets were also distributed throughout the city in places like factories, schools, working men's clubs and GP's surgeries. The campaign lasted for three months and culminated in a '5 day cessation course' for anyone who had 'a strong desire to relinquish the habit'. Records show that these courses were well attended and that some even held a reunion one week later to celebrate their continued abstinence. While these early stop smoking courses may have been infrequent and lacked any sort of evidence-based treatment programme, it was clear that there was a demand for support sessions that could help people stop smoking.

Fast forward to 2012 and the battle against smoking is still being fought. Huge progress has been made towards reducing the harm caused by tobacco in our society. Over the last 40 years, a series of wide-ranging tobacco control measures, have been introduced across the UK, designed to make tobacco less attractive, less accessible and less of a social norm. The smoke-free legislation introduced in 2007 has removed smoking in almost all enclosed public spaces; the age of sale for tobacco has been increased from 16 to 18 years; we now have graphic health warnings on all cigarette packets and there are now wide ranging bans on almost all aspects of tobacco advertising. These measures have played a crucial role in driving down the UK's smoking prevalence to 21% as well as protecting millions from the harm of second-hand smoke.

Significant progress has also been made with regard to smoking cessation. During the 1990s the NHS launched evidenced-based Stop Smoking Services right across the country, which were designed to support smokers who wanted help to quit. These sessions also supported the use of new Nicotine Replacement Therapies (NRT) such as patches and gum, which help clients reduce their cravings and improve their chances of successfully quitting. The current NHS programme consists of 12 weeks behavioural and NRT support from a specialist stop smoking advisor who is on hand to offer a range of helpful tips and guidance to support people to quit smoking for good. With this support, clients are four times more likely to succeed than trying to quit on their own.

In April 2010, Coventry became part of a West Midlands pilot project which aimed to go even further by increasing the number of providers who were able to deliver the NHS approved stop smoking service. The use of nine providers to deliver stop smoking services in a variety of locations across Coventry is making services more accessible for local people. Providers receive a payment for each person they help

to become smoke-free across a 4 and 12 week period. They are also able to claim a higher tariff for targeted groups such as people living in deprived areas, pregnant women, routine and manual workers, young people, black minority ethnic groups and people with mental health issues. This new approach to delivering stop smoking services across the city appears to be making a real difference. Increasing numbers of people are now accessing these services and as a result more people are becoming smoke-free. Overall there has been a 27% increase in the number of 4 week quitters figures, compared to last year, and it is expected that this will increase further before the end of the financial year.

While it is clear that a combination of high profile tobacco control measures, working in conjunction with NHS stop smoking services, has played a huge role the reduction of smoking rates, the smoking problem has not been solved. Smoking prevalence in Coventry (24%) remains above the national average (21%) and smoking related diseases continue to claim the lives of over 450 people in the city every year. Coventry is determined to build upon the success of the last 40 years and will continue to do everything possible to drive down local smoking rates; help people to quit and empower young people to choose not to start smoking in the first place.

Cardiovascular Health Promotion

Cardiovascular disease (CVD) is defined as disease of the heart and/or blood vessels. The most common presentation of CVD is coronary heart disease which can give angina and/or a heart attack. CVD also includes stroke, transient ischemic attack and peripheral arterial disease.

In contrast to the 1970 annual report, deaths from CVD are now declining. Over the last 10 years, death rates among men have decreased from 209 per 100,000 population in 1999 to 100 in 2010, and among women they have decreased from 117 to 41, over the same time period. Despite these decreases, CVD remains the single largest cause of illness, mortality and of premature mortality. CVD is particularly prevalent among those who also have diabetes, those with high blood pressure, and those who smoke. It disproportionately impacts on certain population groups, such as those from lower social economic and ethnic minority groups, for example those from South Asia.

In 1970 the DPH commented on the pre-retirement lecture provided for council employees aimed at providing advice on “preventing disease or at least delaying its onset”. He went on to say that a “similar talk could be extended to benefit other sections of the general community if only more staff time was available for the purpose”. This approach could be regarded as a low level of intervention delivered relatively late (prior to retirement) when most of the cardiovascular damage that predisposes to severe illness and death would already be present.

In 2012, there is a much greater understanding of the factors that give rise to CVD and consequently a range of interventions designed to prevent disease, or reduce its progression, are implemented at both a population level and at an individual level. Population level interventions aim to reduce the risk of CVD for everyone. They include initiatives to promote healthy eating and increased physical activity such as the Change 4 Life campaign and legislation that has banned smoking in public

places. These programmes are targeted at young as well as older people, maximising the chances of preventing disease in the first place.

A number of techniques are used to lower the risk of developing CVD in the first place (primary prevention), or of limiting the consequences of disease once it has been diagnosed (secondary prevention). The NHS Health Check Programme provides a comprehensive approach to primary prevention for all people aged between 40 and 74 years of age. Every 5 years, eligible individuals have their individual risk of having a cardiovascular event (heart attack or stroke) assessed and they are then provided with information, medication and access to services (such as smoking cessation or physical activity) that could lower their risk. This programme was introduced in the NHS in 2008/9 and is being fully rolled out (i.e. provided to everyone aged 40-74) in 2012/13.

Whilst primary prevention is clearly advantageous, secondary prevention treatments can limit the harmful consequences of CVD after it has been diagnosed. Drug treatments such as lipid lowering drugs, aspirin, beta blockers and other drugs that help control blood pressure are commonly prescribed. Less invasive techniques, such as angioplasty and stent insertion can be used in many instances to keep coronary arteries open and avoid the need for coronary by-pass surgery. Whilst much more can be done to treat CVD, and people are now less likely to die from a heart attack or stroke, prevention remains the better option. The current approach of assessing each individuals risk of CVD presents a great opportunity to enable people to do all they can to live a long and healthy life well beyond their retirement. As a result of this emphasis on prevention, focus has now shifted to early detection and identification of illness, even before people start to exhibit symptoms. This is where we have seen the benefit of the introduction of a number of national screening programmes.

Screening

Cervical screening was the first screening programme implemented in England in 1964, followed by Breast Screening in 1988. In 1970, 1,859 Coventry women participated in the cervical screening programme run by the Local Authority. Despite efforts by the screening team to increase uptake through visiting factories and running health promotion campaigns, numbers remained relatively low. It is not reported how many women in Coventry were within the eligible age range at the time. One of the challenges facing the programme was that women could choose to be screened in alternative settings, such as general practice, out-patient or family planning clinics; thus falling outside the remit of the screening programme.

In 2010, 63,908 (76.5%) of the 83,507 women eligible for cervical screening in Coventry attended for their test. 27,458 of them were screened within the last 18 months. Compared to the 10 women recalled for further investigation in 1970, 139 women tested as part of normal call and recall in 2010 were found to have moderate or severe cell changes of the cervix. Since the introduction of systematic cervical screening from the late 1980s, a marked decline in incidence of invasive cervical cancer and in mortality from cervical cancer has been seen, although the decline has levelled off in more recent years. It is therefore important to try to meet and exceed

the national cervical screening coverage target (for 5 year coverage across the screening age range) of 80%.

The latest developments in the programme include a reduction in the turnaround time of sending test results to women (now received within 14 days after the sample was taken) and Human Papilloma Virus (HPV) testing for women with borderline or mild results, which will significantly reduce the number of repeat tests required.

With the establishment of the NHS Cancer Screening Programmes in 1988 and the UK National Screening Committee in 1996, the management of screening has significantly changed. Programmes are systematic, quality-assured, implemented according to common standards, processes and procedures and their effectiveness and cost-effectiveness are regularly reviewed.

There are now national screening programmes in place for breast, cervical and bowel cancer; diabetic eye and abdominal aortic aneurysm and six antenatal and new-born screening programmes. The new-born screening programmes are foetal anomaly, Infectious diseases in pregnancy, new-born blood spot, new-born hearing, sickle cell and thalassaemia, and new-born and infant physical examination. All of these are currently available in Coventry.

Summary of Part 1

In Part 1 of this annual report, I have contrasted and compared the health of the Coventry population from 1970 to that of the Coventry of 2010. So, how have we faired in 40 years?

Population

This has decreased in size from 335,230 to 315,700 (5.8%) in forty year period whilst the overall population of England has increased by 12.5%. However, since 2004 the population of Coventry has been steadily growing. The main increase has been in the over 20s and particularly older men (65+) and older women (75+). Coventry has a younger population than England, especially between the ages of 15-29yrs (two universities are located in Coventry).

Births

In 1970 there were 5,914 live births compared to 4,726 in 2010. The current birth rate is higher in Coventry than the rest of England; births have been steadily increasing since 2005.

Deaths

The total number of deaths in 1970 was 3,090. This fell to 2,661 in 2010. The greatest fall in the death rate during this period was in men; 1,696 to 1,302. The percentage of infant deaths dropped more than 3% to less than 1%. The proportion of deaths in the age group of 45-64yrs dropped from 24% to less than 16%.

The main causes of death in 1970 remain the same in 2010. Only the proportions have changed for circulatory disease, cancer and respiratory disease. In 1970, deaths from circulatory accounted for 48% and 51% of all deaths in men and women respectively. This proportion fell to 29% of all deaths by 2010 for both genders. Cancer accounted for 21% and 20% of all deaths in men and women, this increased in 2010 to 29% for men and 27% for women. Deaths from respiratory disease have remained constant during this period at 15% for men and a slight increase for women from 14% in 1970 to 15% in 2010. Overall, life expectancy has improved for men and for women in Coventry over the past 40 years, but remains less than the rest of England.

What we have seen in this period is the success of better health care interventions around birth and CVD that have reduced the risk of premature mortality. Public Health has been at the forefront of assessing and evaluating the effectiveness of the health care interventions so that now we deliver many more interventions that have strong evidence of benefit. Therefore we have a far greater emphasis on the early identification of risk factors and diseases to allow treatments that prevent disease progressing.

The public health role of the state has also been a force for good in contributing to saving lives and improving life expectancy. Measures include the introduction of legislation on the compulsory wearing of seat belts, crash helmets and most recently

the tobacco control and the ban on smoking in public places. The public's awareness regarding the importance of adopting healthy choices and behaviours has increased, and there is a growing evidence base of what works, for example smoking cessation, alcohol reduction etc. However, this success means that the issue of chronic disease and the importance of lifestyle in later life are becoming more important. Part 2 of the report looks at how this affects the health of people in Coventry today.

Part 2: The Health of Coventry today 2012

Introduction

The second part of my report will focus on some the key health challenges faced by the people of Coventry today, by using current information and data on the city from the Public Health Outcomes Framework (PHOF).

I will also look at the some of the outcomes and indicators of Professor Sir Michael Marmot's review ('Fair Society, Healthier Lives') as they relate to Coventry. Coventry has been invited by the Department of Health to be one of 7 local authority areas in the UK to become part of the UK Marmot Network. This means all partners in the city are committed to accelerated action on inequalities, the key driver for poor health in the city.

In this part of the report I will be looking at a selected number of key outcomes from each of the domains in detail and explore what they really tell us about the health of the people of Coventry today. In this report I will illustrate how inequalities differ in the city by using maps of the city and bus routes which define stark differences in health status in the city. The PHOF domains I will explore cover the following:

- Wider determinants of health
- Health Improvement
- Health Protection
- Health care and premature mortality

In each section the spine chart shows all the indicators currently available from the recently announced Public Health Outcomes Framework. This shows that, apart from immunisation, health outcomes in Coventry are generally average or below average compared to the rest of England.

Life Expectancy

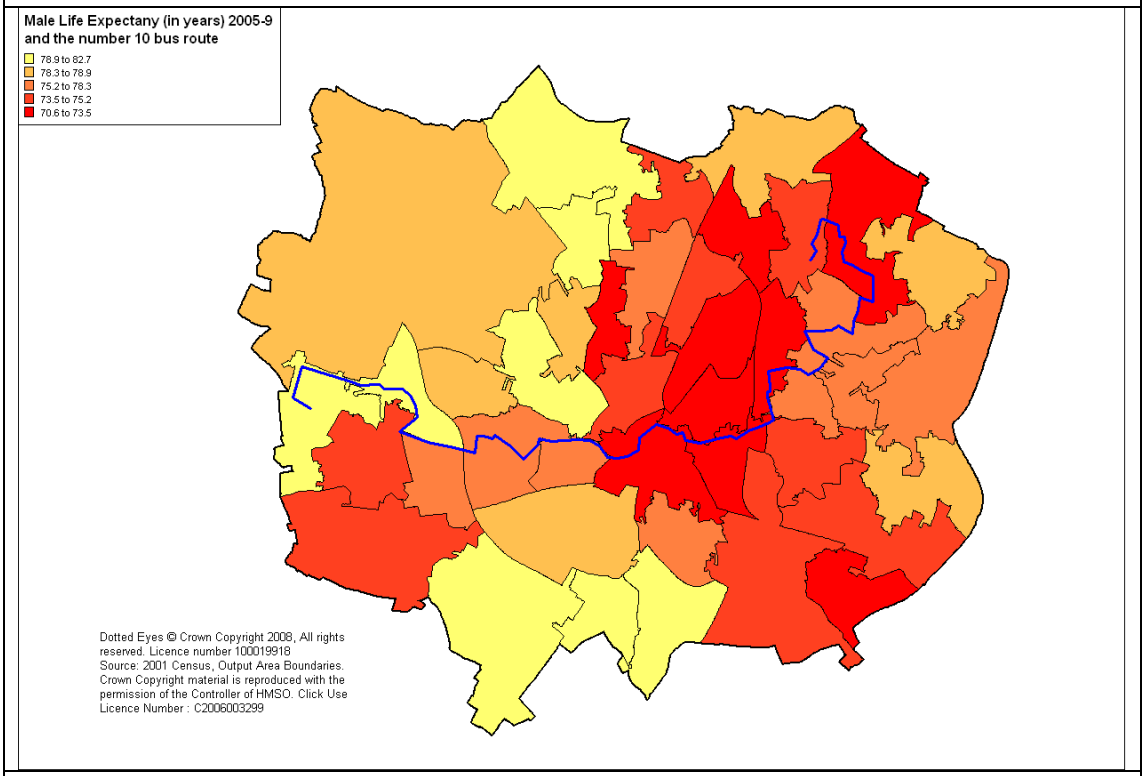
Life expectancy is one of the overarching indicators in the PHOF, which does not belong to any of the four domains. However, baseline information for the indicator is currently not available on the PHOF website, so some earlier work on life expectancy is presented. In the period 2008-10 life expectancy at birth in Coventry was 77.2 years for males compared to 78.6 for England. For females it was 81.6 years compared to 82.6 for England. Both the male and female life expectancy in Coventry is significantly lower than the England value.

It is possible to show how life expectancy changes along the course of bus routes in Coventry. Figure 2.1 below shows a map of Coventry with the areas of best life expectancy for males in yellow and the worst in red, with the number 10 bus route superimposed over it. Figure 2.2 shows how life expectancy varies along the length of the number 10 bus route. The number 10 bus route starts in Banner Lane which has the best male life expectancy (82.7 years), and passes through the city centre, which is the worst area for male life expectancy (70.6) before travelling out to Wood End, and then Bell Green where life expectancy is 74.2.

The variation in life expectancy for females is best illustrated along the number 3 bus route, although this does not pass through the worst and best areas of life expectancy for women. Figure 2.3 shows best female life expectancy in yellow and worst in red with the number 3 bus route superimposed. Figure 2.4 shows the change in life expectancy along the route. The bus route starts in Keresley with a life expectancy of 81.1 years, and slowly dips down to its lowest point in Hillfields at 78.7 years. Life expectancy is also low in Lower Stoke and Stoke Aldermoor (79.0) before the end of the journey at Binley where it rises to 84.7 years.

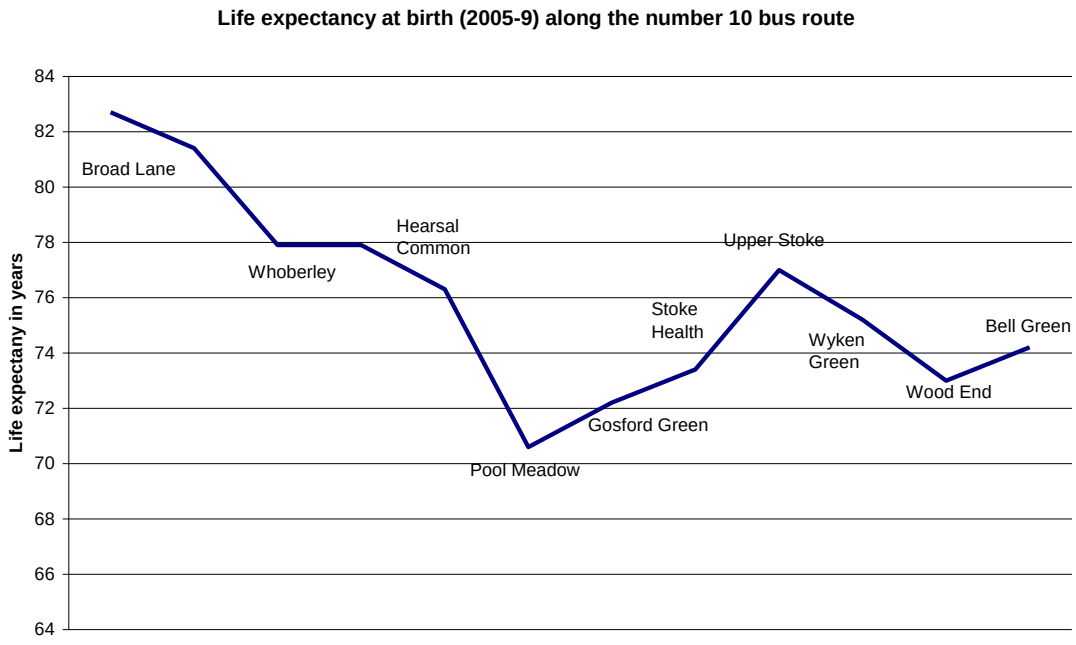
Life expectancy at birth varies across Coventry by 12.1 years in males, from 82.7 years in Banner lane to 70.6 in the City centre. For females life expectancy varies by 11.3 years, from 87.4 years in the ‘Hipswell - Ansty Roads’ area to 76.1 in Willenhall. These calculations are based on data at Middle Super Output Area (MSOA) level for the period 2005-9.

Figure 2.1: Male Life expectancy at birth 2005-9 by Coventry MSOA and the number 10 bus route



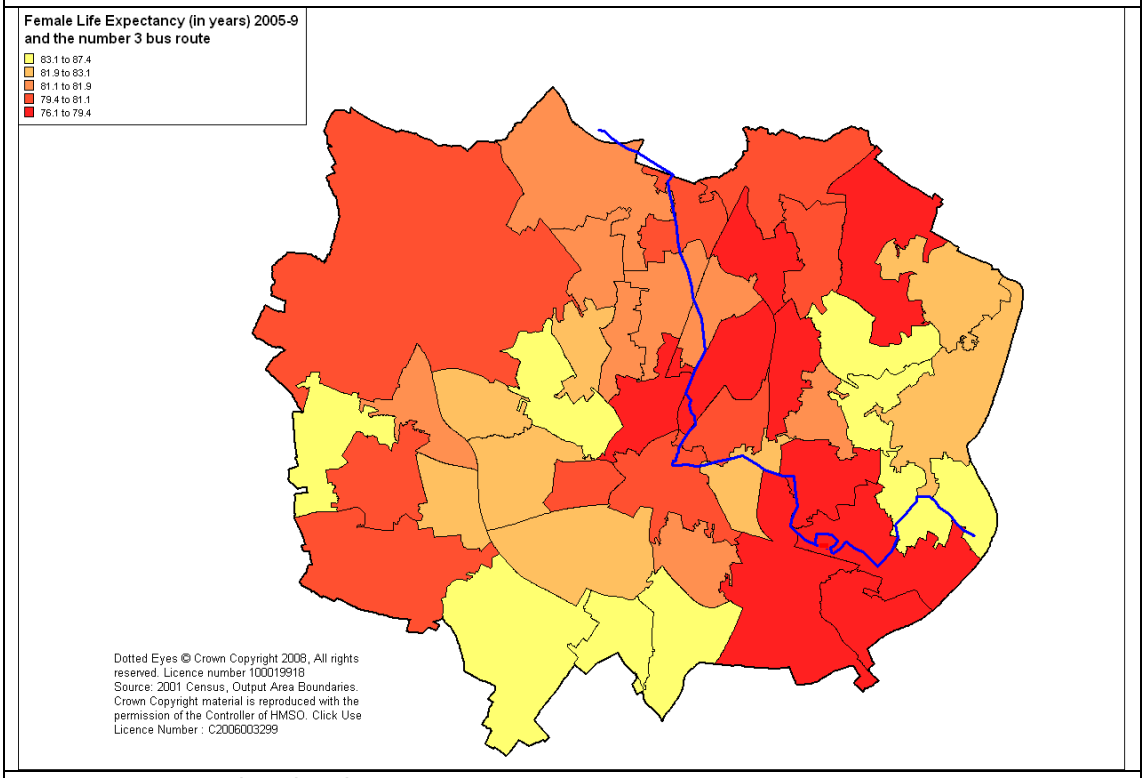
Source: APHO and National Express Coventry
http://nxbus.co.uk/coventry/

Figure 2.2: Male life expectancy at birth (2005-9) along the number 10 bus route



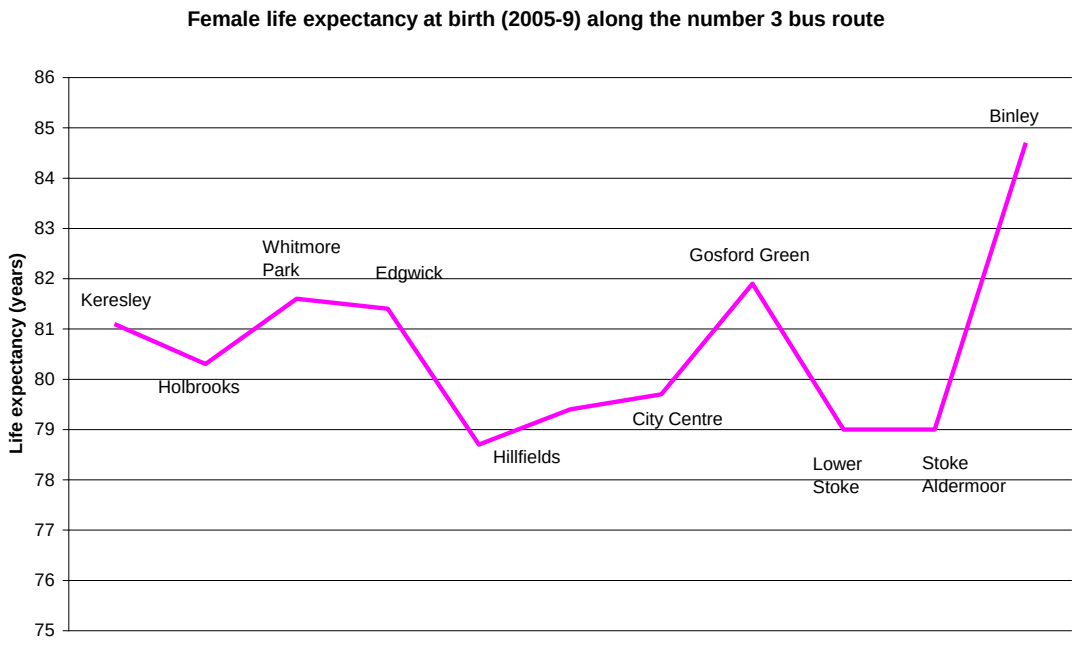
Source: APHO

Figure 2.3: Female life expectancy at birth 2005-9 by Coventry MSOA and the number 3 bus route



Source: APHO and National Express Coventry
http://nxbus.co.uk/coventry/

Figure 2.4: Female life expectancy at birth (2005-9) along the number 3 bus route



Source: APHO

Domain 1: Improving the wider social determinants of health; tackling inequalities

Professor Sir Michael Marmot, in his influential publication 'Fair Society, Health Lives' (2010), highlighted the negative impact that inequalities can have on people's health. The evidence in his report states that health inequalities arise because of inequalities in society, in the conditions in which people are born, grow, live, work, and age. Therefore, taking action to reduce inequalities in health does not require a separate health agenda, but action across the whole of society.

Inequalities continue to define the health status of many people who live in Coventry. They remain important and we need to ensure that our key strategic plans and commissioning intentions address this issue. Inequalities are a matter of life and death, of health and sickness, of well-being and misery. The fact that in Coventry today people in different social circumstances experience avoidable differences in health, well-being and length of life is, quite simply, unfair. Creating a fairer society and city is fundamental to improving the health of the whole population and ensuring a fairer distribution of good health.

The Public Health Outcome Framework indicator spine is shown in Figure 2.5

Figure 2.5: Domain 1, wider determinants of health

Public Health Outcomes Framework

Coventry

Spine Charts

Wider determinants of health		Period	Local value	Eng. value	Eng. lowest	Range	Eng. highest
1.01	Children in poverty	2010	27.0	21.1	7.4		45.9
1.03	Pupil absence	2010/11	6.08	5.79	4.84		7.12
1.04i	First time entrants to the youth justice system	2011	451	749	296		2,134
1.05	16-18 year olds not in education employment or training	2011	6.0	6.1	1.6		11.8
1.06i	Adults with a learning disability who live in stable and appropriate accommodation	2011/12		70.0	30.9		93.8
1.06ii	Adults in contact with secondary mental health services who live in stable and appropriate accommodation	2010/11	66.0	66.8	1.3		92.8
1.10	Killed and seriously injured casualties on England's roads	2009 - 11	36.4	42.2	18.1		82.4
1.12i	Violent crime (including sexual violence) - hospital admissions for violence	2009/10 - 11/12	96.9	67.7	9.9		213.5
1.12ii	Violent crime (including sexual violence) - violence offences	2011/12	14.3	13.6	4.9		32.7
1.13i	Re-offending levels - percentage of offenders who re-offend	2010	27.3	26.8	17.3		36.3
1.13ii	Re-offending levels - average number of re-offences per offender	2010	0.81	0.77	0.41		1.25
1.14i	The percentage of the population affected by noise - Number of complaints about noise	2010/11	13.2	7.8	1.3		66.7
1.15i	Statutory homelessness - homelessness acceptances	2011/12	4.5	2.3	0.2		9.7
1.15ii	Statutory homelessness - households in temporary accommodation	2011/12	0.5	2.3	0.0		32.4
1.16	Utilisation of outdoor space for exercise/health reasons	Mar 2009 - Feb 2012	10.3	14.0	2.2		29.1

1.01 - % of children living in households where income is less than 60% of median household income before housing costs **1.03 - %** of half days missed by pupils due to overall absence (incl. authorised and unauthorised absence) **1.04i** - Rate of 10-17 year olds receiving their first reprimand, warning or conviction per 100,000 population **1.05 - %** of 16-18 year olds not in education, employment or training (NEET) **1.06i - %** of adults with a learning disability who are known to the council, who are recorded as living in their own home or with their family **1.06ii - %** of adults receiving SMHS living independently at the time of their most recent assessment, formal review or other multi-disciplinary care planning meeting **1.10** - Rare of people KSI on the roads, all ages, per 100,000 resident population **1.12i** - Age-standardised rate of emergency hospital admissions for violence per 100,000 population **1.12ii** - Crude rate of violence against the person offences per 100,000 population **1.13i - %** of offenders who re-offend from a rolling 12 month cohort **1.13ii** - Average no. of re-offences committed per offender from a rolling 12 month cohort **1.14i** - No. of complaints per year per LA about noise per 1,000 population **1.15i** - Homelessness acceptances per 1,000 households **1.15ii** - Households in temporary accommodation per 1,000 households **1.16 - %** of people using outdoor space for exercise/health reasons

How to interpret the spine charts

Child Poverty

Child poverty is an important issue for public health. Definitions of child poverty are shown in the box below, inclusion of this indicator emphasises its importance. There is evidence that childhood poverty leads to premature mortality and poor health outcomes for adults (see the Marmot Review, 2010). Reducing the numbers of children who experience poverty should improve these adult health outcomes and increase healthy life expectancy.

The Child Poverty Act 2010 uses four measures to define child poverty:

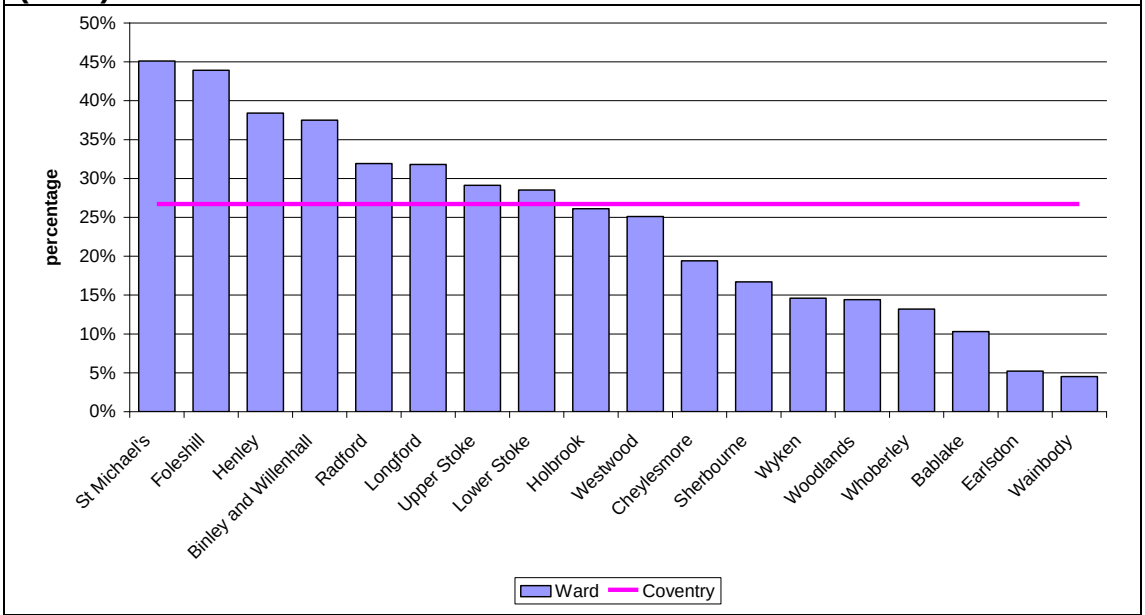
- **Relative income**: household income less than 60 per cent of current median income.
- **Combined low income and material deprivation**: children who experience material deprivation and live in households with incomes less than 70 per cent of current median income.
- **Absolute income**: household income less than 60 per cent of 2010/11 median income adjusted for prices.
- **Persistent poverty**: household income less than 60 per cent of current median income for at least three out of the previous four years.

The impact of poverty is more keenly felt in childhood. Discussion about child poverty in the UK is often somewhat detached, offering statistical data on how far family income falls short of the Government's poverty line and speculating about the economies families have to make. This rarely captures the daily, grinding poverty that 4 million children in the UK currently experience, of which nearly 19,000 are in this city. It doesn't capture how they deal with money and the challenges they face in making a low income meet the diverse, and sometimes unpredictable, needs of family life.

Context

The Child Poverty Act 2010 includes a commitment to eradicate child poverty in the UK by 2020. Reducing child poverty is one of the Public Health Outcomes in the domain of Improving Wider Determinants of Health. Children who are brought up in poverty are much more likely to experience poorer health outcomes. They are more likely to be born prematurely and die in the first year of life. Children living in deprived areas are more likely to be obese and have poor dental health. Growing up in poverty is also associated with a substantially higher risk of teenage pregnancy. Teenage parenthood can have a negative impact on the mother's health and the outcomes of her children. Children growing up in poverty are more likely to become NEETs (not in employment, education or training).

Figure 2.6 Percentage of children by in Poverty by ward in Coventry (2011)



Source: End Child Poverty 2011 www.endchildpoverty.org.uk

In 2010, 16,845 (27%) children and young people in Coventry were living in poverty, according to the official definition of child poverty. The majority of the children living in poverty were under 16 years of age. Coventry has a significantly higher percentage of child poverty than the national average.

Our focus moving forward

Child poverty is a complicated issue that has a negative impact on both educational and health outcomes. The single biggest determinant in addressing child poverty is the creation of sustainable, quality, jobs for the city. Secondary to this will be the requirement of a co-ordinated effort from the local authority, health services, voluntary sector and communities to ensure all is being done to ameliorate the impact of poverty on children.

The Government has acknowledged that fiscal measures alone will not eradicate child poverty by 2020. The building blocks of employment and adult skills, financial support, services for children, young people and families, social inclusion, housing and the environment are all important in breaking the intergenerational cycles of poverty. But the principal requirement is for families living in poverty to have a greater income (half the children who live in poverty have a parent or parents working).

Research conducted by the Joseph Rowntree Foundation and published in their report 'Child and working age poverty from 2010 to 2020'[5] identified that the direct impact of the current government's announced reforms to personal tax and benefit policy will be to increase relative poverty among children by 200,000 in both 2015/16

[5]Joseph Rowntree Foundation (2011) Child and working age poverty from 2010 to 2020 http://www.jrf.org.uk/sites/files/jrf/children-adult-poverty-welfare-summary.pdf

and 2020/21. Among working-age adults, it will increase relative poverty by 200,000 in 2015/16 and 400,000 in 2020/21. In light of this research, it is likely that we can expect the poorest families to bear the brunt of the current recession and the reform of the welfare system which will mean a reduction in benefits to many lower and middle income families.

Young people aged 16-19 not in education, employment or training (NEETs)

Context

Young people who are not engaged in education, employment or training are known as NEETs and are at greater risk of a range of negative outcomes, including poor health, depression or early parenthood. This indicator is included to encourage services to work together to support young people, particularly the most vulnerable, to engage in education, training and work.

It is a dynamic group with some people staying in it for long periods and some moving out relatively quickly. A large proportion of this group is unavailable for employment or training due to long-term illness, pregnancy or caring responsibilities. NEETs are more likely to become unemployed, have low income, become teenage parents, to suffer from depression, and to develop poor physical health in future. Children growing up in poverty are more likely themselves to become NEETs in the future.

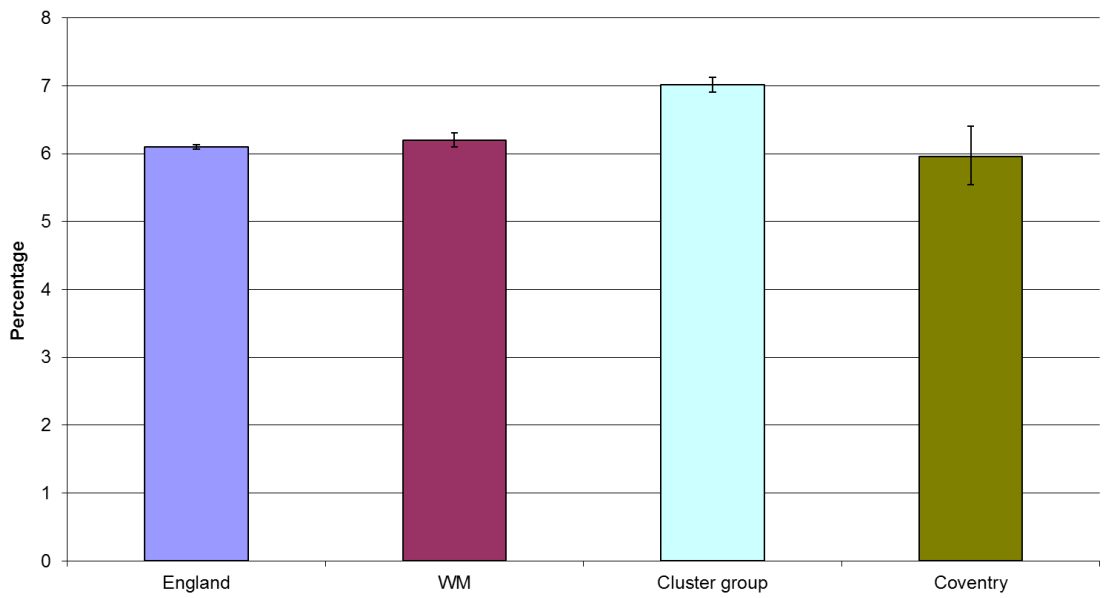
In 2011, Coventry had 6.0% NEETs which is not significantly different to the national rate of 6.1%, (shown in Figure 2.7) or the West Midlands; however it is significantly better than the ONS cluster group. The total number of NEETs in Coventry is now 680, but Figure 2.8 shows the proportion of NEETs in November 2011. There are more male NEETs (57%) in Coventry than female (43%). The lower percentage of females is thought to be due to their overall higher educational attainment in the city. 29% of female NEETs are either teenage mothers or pregnant. The largest NEET subgroup is the 'White males living in deprived areas' group.

The poor state of the economy is negatively affecting the job markets, which in turn makes it more difficult to achieve targets related to NEETs. This has also affected the level of funding for the programme. The Government is committed to "Raising of the Participation Age" which requires all 16-18 year olds to be in learning by 2015 by law.

Our focus moving forward

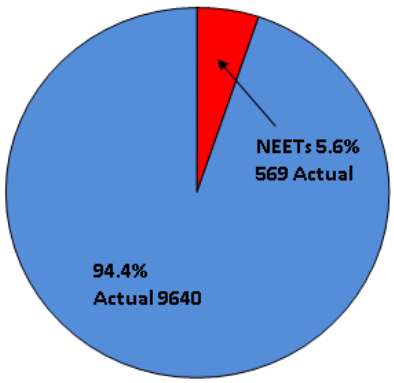
Coventry City Council has commissioned CSWP Ltd (a local and national provider of specialist careers advice and guidance services for young people and adults) to lead the work on reducing the number of young people in the NEET group within the City. The organisation works together with multi-agency partners including employers, schools, colleges, CAMHS (Child and Adolescent Mental Health Service), Social Services and Youth Offending services, as appropriate.

Figure 2.7 The percentage of young people aged 16-19 who are not in education, employment or training between in 2011.



Source: PHOF data
NB the percentage for 'Centres with industry' cluster group is calculated from the component LAs

Figure 2.8 The proportion of 16-18 year olds in Coventry who were NEET in November 2011



Source: CSWP Ltd – The Careers Guidance Company

Community safety and domestic and sexual violence

Violent crime, including sexual violence, was significantly higher in Coventry (14.3 per 1000 population) than for England as a whole (13.6) in 2011/12, as shown in the domain spine chart (Figure 2.5). As mentioned previously, the evidence from the Marmot report states that health inequalities arise because of inequalities in society, in the conditions in which people are born, grow, live, work, and age. Therefore, taking action to reduce the negative impact of domestic and sexual violence and abuse in this city requires a whole partnership approach. Tackling domestic abuse as a public health issue is vital for ensuring that some of the most vulnerable people in our society receive the support, understanding and treatment they deserve. The more we can focus in on interventions that are effective, the more we can treat victims and prevent future re-victimisation.

Community Safety and Health

A person's sense of well-being is linked to a number of factors, not least of which is: feeling safe and secure in your City, community and home. Community safety is difficult to define and is often invoked as a generic, all-encompassing phrase such as 'crime prevention' or 'crime reduction'. However, its focus is much wider, as it looks at local priorities for introducing physical and social changes to local environments, as a way of preventing crime and disorder from taking place. The Home Office defines community safety as:

> 'An aspect of quality of life in which people, individually and collectively, are protected as far as possible form hazards or threats that result from the criminal or anti-social behaviour of others and are equipped or helped to cope with those they do experience'[6].

Community safety is a public health issue. At the neighbourhood level, safety is associated with positive mental health[7]. Feeling safe while in the home and neighbourhood, and feeling socially connected with the community may have an individual protective effect on health[8]. Conversely, when individuals, particularly women and the elderly, perceive their community to be unsafe, they are most likely to have high levels of psychological distress[8].

The Coventry Household Survey 2011 asked residents how safe they felt in their community. Findings suggest that perceptions of neighbourhood safety in the daytime were very high (97% feel safe/very safe) which echoes 2009 findings. However, greater numbers of people renting from housing associations (White Friars 9%, other 7%), and resident in Wood End, Henley & Manor Farm (11%) and Willenhall (9%), reported feeling unsafe in the day.

A higher proportion of residents felt safe in their neighbourhood at night proportion (79%) than did in previous years (75% in 2009 and 66% in 2007). One in five

[6] Community Safety Advisory Service, Community Safety and Crime Reduction, 2007

[7] AM Ziersch, FE Baum, C MacDougall and C Putland. 2005 Neighbourhood life and social capital: The implications for health. *Social Science and Medicine,* 60. Issue 1, Pages 71-86.

[8] R Sampson, SW Raudenbush, and F Earls. 1997 Neighbourhoods and violent crime: A multilevel study of collective efficacy. *Science,* 277:918-924.

residents (21%) felt unsafe in their neighbourhood at night. This proportion was significantly higher amongst women than men (26% vs. 16%), higher than average amongst the youngest and oldest residents (24% of 16-24yrs and 27% of 80+) and significantly higher amongst those renting from White Friars (28%) or another housing association (31%) than amongst those renting privately (21%) or owner occupiers (19%).

Domestic Violence (DV) and Abuse (DVA)

Of all community safety issues, domestic violence and abuse carries the greatest financial cost to the city, estimated in the region of £140 million per annum[9]; and can be shown to have further long lasting effects on victims and their children. The impact for children witnessing domestic abuse is wide ranging, including negative emotional and behavioural effects. As they reach adulthood, these children are more likely to become victims or offenders themselves, perpetuating the cycle.

It is not easy to define a single set of circumstances or characteristics which lead to an individual becoming an offender; however various studies[10] outline the following:

- Offenders own experiences
- Difficultly regulating anger and emotional reactions
- Drugs and Alcohol
- Personal insecurities
- Jealousy
- Financial hardship / stress
- Feeling inferior to their partner in some way
- Personal belief (Including religious beliefs)

Past experience, usually in childhood, is the most important factor which may indicate future behaviour. Various studies conclude that it is difficult to escape habits and attitudes formed at an early age[11], and guided by learnt violent behaviour in a family setting. In many cases offenders may have often seen violence or they may have been victims themselves. Children who witness or are the victims of violence may believe that submission is a reasonable way to resolve conflict. Young males taught that women are not to be valued or respected, and who witness violence against women, are more likely to be abusive towards them when they grow up. Young females who witness domestic violence in their family are more likely to become victims themselves. Local Youth Offending Services (YOS) data for all violent offences supports these findings, showing the main motivations for violence are thinking and behaviour, family and personal life, and education (disjointed or not concluded). Drugs and alcohol often complicate and exacerbate the problem for both the victim and the offender, as well as act as a trigger for offending.

[9] Coventry Domestic Violence: Current Evidence report; March 2011.
[10] Domestic Violence and Abuse. Signs of Abuse and Abusive Relationships. Help guide http://helpguide.org/mental/domestic_violence_abuse_types_signs_causes_effects.htm
[11] University of East Anglia. Domestic Violence. http://www.uea.ac.uk/menu/acad_depts/swk/MRC_web/public_html/files/qpb14.pdf

In total, the police recorded 1,666 crimes in Coventry that were classed as 'domestic related' in 2011; offences were recorded against 1,287 individual victims. Overall nearly a third (29.3%) of recorded violence was domestic related, 87.8% of police recorded victims were female. The majority of victims who contact voluntary domestic violence agencies report that they are still living with the perpetrator (77%). 80% of police recorded crime victims are aged between 17 and 43; the core age lies between 18 and 34 years of age (63.4% victims).

Coventry continues to have a higher rate of domestic abuse than the West Midlands average; however reports to the police have dropped in line with reductions in general violent crime. The proportion of violent offences (23.5%) has stayed the same. DV calls are received from across the city, but hotspot areas are Willenhall, Canley, Hillfields into Lower Stoke, Stoke Heath, Canal Basin area and Tile Hill. 80% of domestic violence takes place within private settings and March-May, July, August and December are peak months for offences.

Sexual Violence

Coventry is recognised as having greater issues than other parts of the country and similar areas, possibly attributable to its younger demography (high volumes of students and a younger profile amongst immigrant communities). Sexual offence hotspots are the City Centre, Willenhall, Whitley, Hillfields, Radford Diamond, Edgwick, Canley, Manor Farm and parts of Wood End.

In terms of lasting damage to the victim, sexual offences are second only to homicide; the same is true of the financial costs incurred by responsible authorities and to society in general. Becoming a victim of sexual violence is one of the most traumatic and damaging events that an individual can be subject to. Therefore understanding the issues facing the city, and the vulnerabilities around sexual violence is important. The following data from Coventry Rape and Sexual Abuse Centre (CRASAC) outlines some of the issues relating to sexual violence:

- Each rape costs the taxpayer £96,000.
- Nationally around 10,000 women are sexually assaulted and about 2,000 women are raped every week.
- Up to 16% of children (under 16) experienced sexual abuse during childhood (11% of boys and 21% of girls).
- Studies suggest that between 75% and 95% of rapes go unreported; with a generally held rate of around 11% reporting[12].
- Fear of not being believed is cited as one of the primary reasons for not reporting, as well as shame, blame and embarrassment.
- Victims who know offenders are less likely to report than victims attacked by strangers.
- Based on recorded crime, sexual offences cost Coventry £10.2 million per annum[13].

[12] L Wainer and L Summers (2011) Understanding the Extent and Nature of Serious Sexual Violence in the London Borough of Hackney. FINAL REPORT
http://www.ucl.ac.uk/scs/publications/downloads/hackney-march2011.pdf

- If the 89% of unreported offences are included, potentially around £90 million.
- If the lower estimation (75%) underreporting is used then there would be 1,500 victims; including 363 offences of rape.
- If the higher (89%) estimate is used there would be 3,300 sexual offences.

Our focus moving forward

The level of violent and sexual crime against women in the city is intolerable and needs a whole city approach to address it. The Coventry Health and Wellbeing Board, in its Joint Health and Wellbeing Strategy, have identified this area as a priority that requires a system wide response. It will be incumbent on all partners in the city to support this important work led by the Coventry Community Safety Partnership.

Fuel Poverty

The drivers of fuel poverty are low income, poor energy efficiency and energy prices, and result in people living at low temperatures. The recent Marmot Review Team report showed that low temperatures are strongly linked to a range of negative health outcomes. Media coverage of an independent interim report of the Fuel Poverty Review suggested that a conservative estimate of the number of excess winter deaths caused by fuel poverty would be 1 in 10; this equates to 2,700 people per year, more than die on the roads each year. Marmot[14] acknowledges that fuel poverty is a long-standing health issue: the impact of cold housing on health and the stresses brought on by living in fuel poverty have been recognised for decades by researchers, medical professionals and policy makers alike.

Cold housing and fuel poverty can be successfully tackled through policies and interventions, if there is a will to do so. There is a social gradient in fuel poverty, the lower your income the more likely you are to be at risk of fuel poverty. Inequalities that are avoidable are fundamentally unfair; fuel poverty is avoidable and it contributes to social and health inequalities.

Being in fuel poverty is the product of three factors:

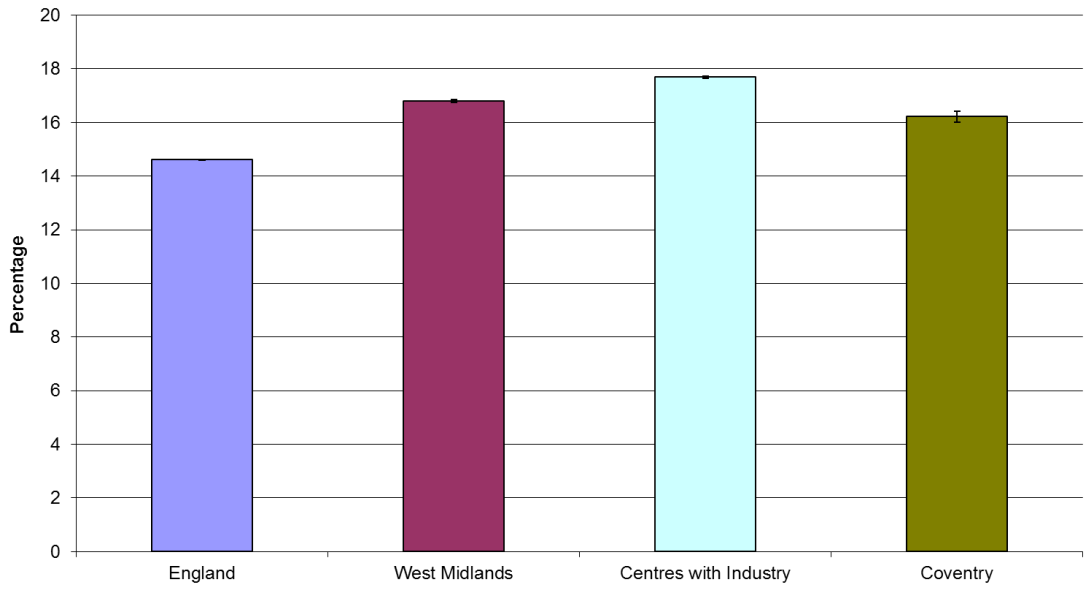
- The energy efficiency of the house which determines how expensive it will be to heat.
- The cost of heating fuel.
- The household income which determines how much a 10% spend on heating would be.

Fuel poverty statistics estimate the number of households that need to spend more than 10% of their income on fuel to maintain a satisfactory heating regime, as well as meeting their other fuel needs such as lighting and appliances, cooking and water heating[14].

[13] Using the Home Office 'Cost of Crime' reckoner.
[14] The health impacts of cold homes and fuel poverty: The Marmot Review Team. May 2011.

There were 16.2% of people in Coventry living in fuel poverty in 2011, which is significantly higher than England (see Figure 2.9). The effects of fuel poverty are shown through excess winter deaths[15]; 75% of excess winter deaths are caused by cardiovascular and respiratory diseases. Figure 2.10 shows that excess winter deaths are similar to national figures. This may suggest that some of the adverse effects of fuel poverty are being offset by local action to reduce excess winter deaths and other health impacts of excess cold in Coventry through partnership work with statutory, private and voluntary sector providers.

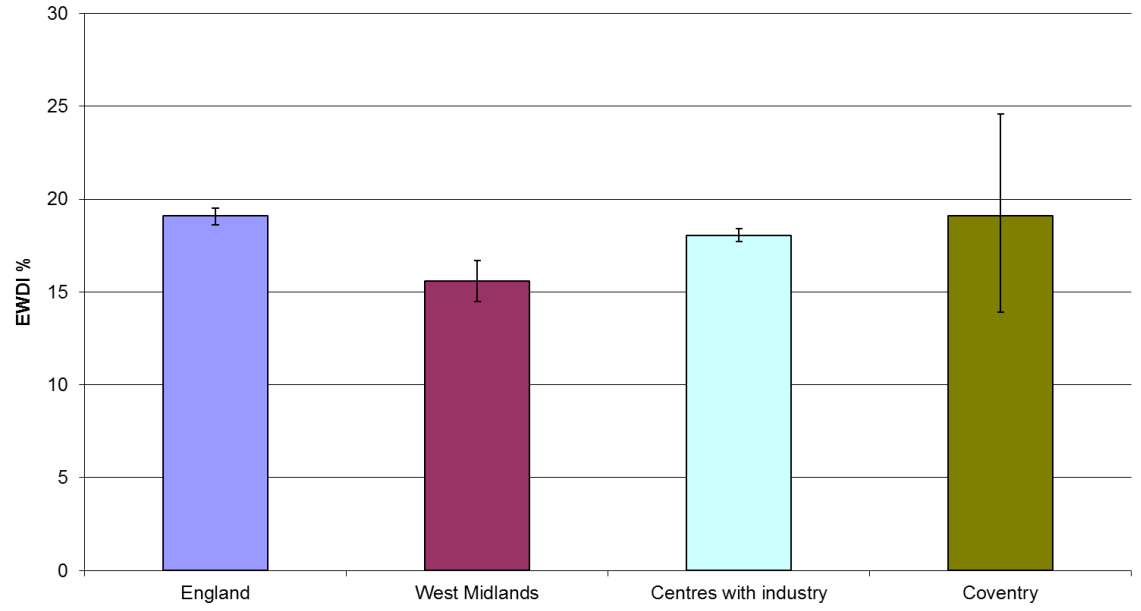
Figure 2.9: The percentage of fuel poor households in 2011



Source: Department of Energy and Climate Change (DECC)

[15] The Office for National Statistics calculates excess winter deaths as the difference between the number of deaths in December – March and the average of deaths in the preceding August – November and the following April – July. If a two month period is taken instead of the four months, the peak of excess winter deaths is consistently more than 40% higher than the summer trough. Each *one degree centigrade reduction below 18C in temperature in the UK corresponds with an extra 3500 deaths.

2.10 Excess Winter death 2008-11 (Excess Winter Mortality Index expressed as a percentage)



Source: WMPHO Excess Winter Death Index.

During the latest ‘winter warmth’ campaign the Council invested in 200 additional hours of 'Helping Hands' service from Age UK, which has increased access to support for vulnerable older people, during recent cold snaps, to ensure they had:

- Enough food, heating and clothing to ensure they remained comfortable during the colder weather.
- An additional 30 heaters were distributed to older people during the recent cold snap, to ensure they remained warm.
- It was planned to distribute 25,000 across Coventry to enable vulnerable groups to monitor the temperature in their own homes.
- A fast track service for particularly vulnerable groups to receive free loft and cavity wall insulation was being developed.

Improving the energy efficiency of the housing stock is an essential step to reduce the number of households in fuel poverty, mitigate climate change and bring associated health benefits. Poverty more widely affects health, but fuel poverty should be considered distinctly because:

- Not all who are income poor are also fuel poor.
- Factors other than income poverty can be tackled to reduce fuel poverty.
- Although their causes are inter-related, the effects of fuel poverty are distinct from the effects of income poverty. They relate to specific health conditions rather than health as a whole and negative health outcomes are more immediate than the outcomes caused by income poverty.
- Fuel poverty is more amenable to change than income poverty.

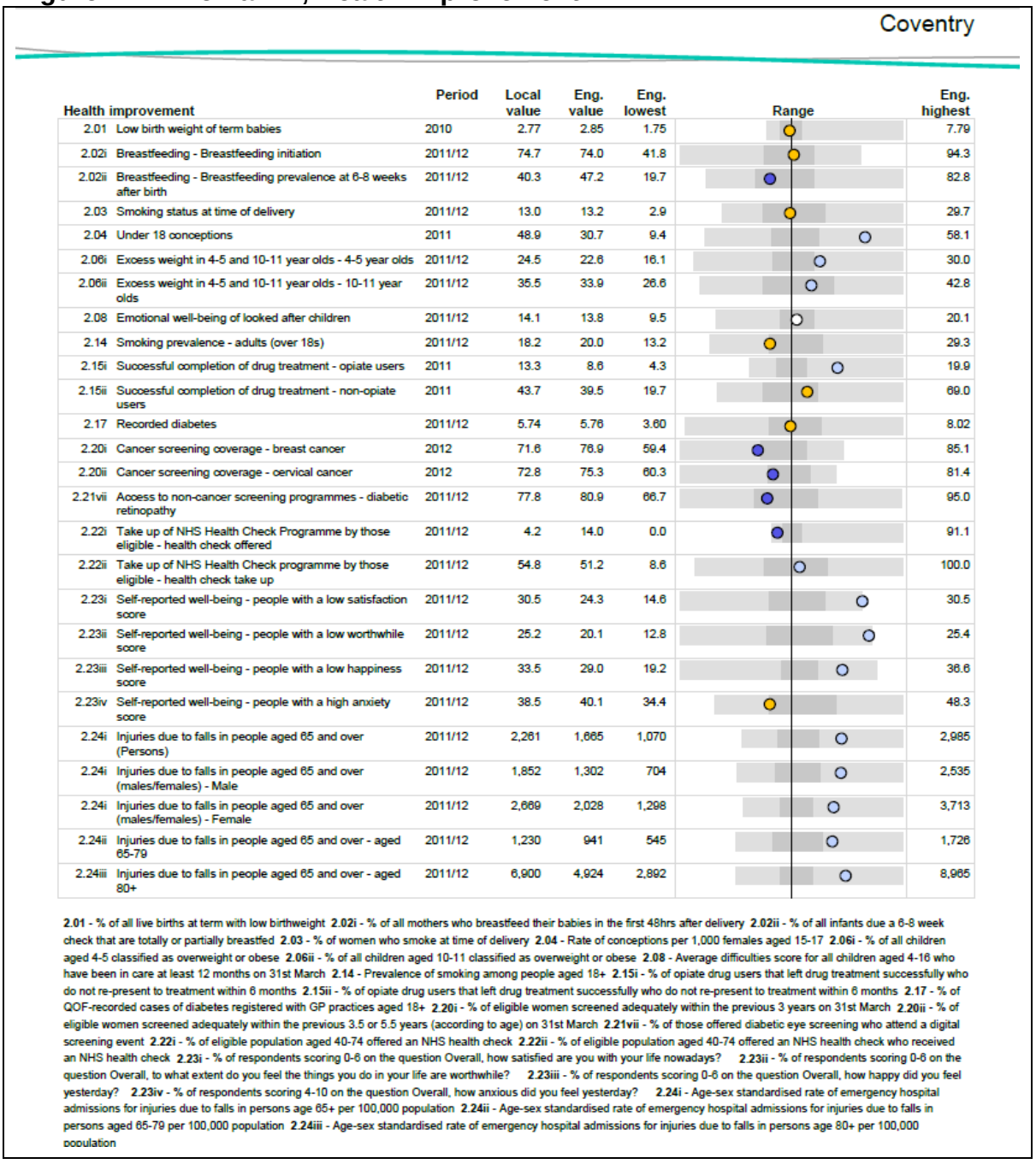
Our focus moving forward

As Figure 2.9 illustrates, 16% of Coventry households were in fuel poverty in 2011 (and reported to be as high as 40% of households in some parts of the City); this is significantly higher than England (14%) but similar to the West Midlands and Centres with Industry. Therefore our focus moving forward needs to remain on tackling fuel poverty, as it continues to be an important issue in protecting and promoting the health of the most vulnerable in the city for the City Council and its partners.

Domain 2: Health Improvement

The focus of health improvement is to ensure people are helped to live healthy lifestyles, make healthy choices and reduce health inequalities. This means that individuals are enabled to take greater control of their lives by making informed decisions, for example, increasing the amount of physical activity they take, or being safe and sensible about alcohol consumption. There is also an emphasis on commissioning and delivering evidenced based programmes/interventions that are focused on intervening early i.e. 'prevention is better than cure'. Therefore, again the outcomes have focus on early years and lifestyle. The spine chart for the health improvement domain is shown in Figure 2.11.

Figure 2:11: Domain 2, Health Improvement



Health improvement		Period	Local value	Eng. value	Eng. lowest	Range	Eng. highest
2.01	Low birth weight of term babies	2010	2.77	2.85	1.75		7.79
2.02i	Breastfeeding - Breastfeeding initiation	2011/12	74.7	74.0	41.8		94.3
2.02ii	Breastfeeding - Breastfeeding prevalence at 6-8 weeks after birth	2011/12	40.3	47.2	19.7		82.8
2.03	Smoking status at time of delivery	2011/12	13.0	13.2	2.9		29.7
2.04	Under 18 conceptions	2011	48.9	30.7	9.4		58.1
2.06i	Excess weight in 4-5 and 10-11 year olds - 4-5 year olds	2011/12	24.5	22.6	16.1		30.0
2.06ii	Excess weight in 4-5 and 10-11 year olds - 10-11 year olds	2011/12	35.5	33.9	26.6		42.8
2.08	Emotional well-being of looked after children	2011/12	14.1	13.8	9.5		20.1
2.14	Smoking prevalence - adults (over 18s)	2011/12	18.2	20.0	13.2		29.3
2.15i	Successful completion of drug treatment - opiate users	2011	13.3	8.6	4.3		19.9
2.15ii	Successful completion of drug treatment - non-opiate users	2011	43.7	39.5	19.7		69.0
2.17	Recorded diabetes	2011/12	5.74	5.76	3.60		8.02
2.20i	Cancer screening coverage - breast cancer	2012	71.6	76.9	59.4		85.1
2.20ii	Cancer screening coverage - cervical cancer	2012	72.8	75.3	60.3		81.4
2.21vii	Access to non-cancer screening programmes - diabetic retinopathy	2011/12	77.8	80.9	66.7		95.0
2.22i	Take up of NHS Health Check Programme by those eligible - health check offered	2011/12	4.2	14.0	0.0		91.1
2.22ii	Take up of NHS Health Check programme by those eligible - health check take up	2011/12	54.8	51.2	8.6		100.0
2.23i	Self-reported well-being - people with a low satisfaction score	2011/12	30.5	24.3	14.6		30.5
2.23ii	Self-reported well-being - people with a low worthwhile score	2011/12	25.2	20.1	12.8		25.4
2.23iii	Self-reported well-being - people with a low happiness score	2011/12	33.5	29.0	19.2		36.6
2.23iv	Self-reported well-being - people with a high anxiety score	2011/12	38.5	40.1	34.4		48.3
2.24i	Injuries due to falls in people aged 65 and over (Persons)	2011/12	2,281	1,665	1,070		2,985
2.24i	Injuries due to falls in people aged 65 and over (males/females) - Male	2011/12	1,852	1,302	704		2,535
2.24i	Injuries due to falls in people aged 65 and over (males/females) - Female	2011/12	2,669	2,028	1,298		3,713
2.24ii	Injuries due to falls in people aged 65 and over - aged 65-79	2011/12	1,230	941	545		1,726
2.24iii	Injuries due to falls in people aged 65 and over - aged 80+	2011/12	6,900	4,924	2,892		8,965

2.01 - % of all live births at term with low birthweight **2.02i** - % of all mothers who breastfeed their babies in the first 48hrs after delivery **2.02ii** - % of all infants due a 6-8 week check that are totally or partially breastfed **2.03** - % of women who smoke at time of delivery **2.04** - Rate of conceptions per 1,000 females aged 15-17 **2.06i** - % of all children aged 4-5 classified as overweight or obese **2.06ii** - % of all children aged 10-11 classified as overweight or obese **2.08** - Average difficulties score for all children aged 4-16 who have been in care at least 12 months on 31st March **2.14** - Prevalence of smoking among people aged 18+ **2.15i** - % of opiate drug users that left drug treatment successfully who do not re-present to treatment within 6 months **2.15ii** - % of opiate drug users that left drug treatment successfully who do not re-present to treatment within 6 months **2.17** - % of QOF-recorded cases of diabetes registered with GP practices aged 18+ **2.20i** - % of eligible women screened adequately within the previous 3 years on 31st March **2.20ii** - % of eligible women screened adequately within the previous 3.5 or 5.5 years (according to age) on 31st March **2.21vii** - % of those offered diabetic eye screening who attend a digital screening event **2.22i** - % of eligible population aged 40-74 offered an NHS health check **2.22ii** - % of eligible population aged 40-74 offered an NHS health check who received an NHS health check **2.23i** - % of respondents scoring 0-6 on the question Overall, how satisfied are you with your life nowadays? **2.23ii** - % of respondents scoring 0-6 on the question Overall, to what extent do you feel the things you do in your life are worthwhile? **2.23iii** - % of respondents scoring 0-6 on the question Overall, how happy did you feel yesterday? **2.23iv** - % of respondents scoring 4-10 on the question Overall, how anxious did you feel yesterday? **2.24i** - Age-sex standardised rate of emergency hospital admissions for injuries due to falls in persons age 65+ per 100,000 population **2.24ii** - Age-sex standardised rate of emergency hospital admissions for injuries due to falls in persons aged 65-79 per 100,000 population **2.24iii** - Age-sex standardised rate of emergency hospital admissions for injuries due to falls in persons age 80+ per 100,000 population

Breastfeeding

Focus on this indicator will encourage the continued prioritisation of breastfeeding support locally. Increases in breastfeeding initiation and prevalence are expected to reduce illness in young children, which will in turn reduce hospital admissions of the under 1s (and the costs to the NHS that are associated with this). In the longer term, infants who are not breastfed are more likely to become obese in later childhood, develop type 2 diabetes and tend to have slightly higher levels of blood pressure and blood cholesterol in adulthood.

Breastfeeding provides complete nutrition for infants, and exclusive breastfeeding is recommended by WHO for the first 6 months of life[16]. There is a wealth of evidence demonstrating that breastfeeding has multiple benefits to mother and baby in both the short and long term[17]. Breastfeeding protects against common childhood diseases including gastroenteritis, chest and ear infections, asthma, eczema, obesity and heart disease[18]. Recent evidence shows a reduced risk of diabetes in both mother and baby[19]. Other benefits to the mother include a reduced risk of post-natal depression, pre-menopausal breast and ovarian cancer, and osteoporosis. Calculations from a mere handful of illnesses, where breastfeeding is thought to have a protective effect, revealed that a moderate increase in breastfeeding rates could result in annual savings to the NHS of about £40 million per year. The true cost savings are likely to be much higher [20].

Women from the lower socioeconomic groups have the lowest breastfeeding rates and teenage mothers are half as likely to breastfeed as older women[21]. The figure below shows the percentage of women initiating breastfeeding and still breastfeeding at 6-8 weeks in Coventry, compared to England and Centres with Industry in the second quarter of 2011/12. Initiation rates in Coventry are higher than other centres with industry, but more women stop breastfeeding before 6-8 weeks. The Coventry Infant Feeding Survey (2010) highlighted that 90% of mothers who gave up breastfeeding within 6 weeks of birth would have liked to have breastfeed for longer. The reasons given for discontinuing were lack of ante-natal information, delay in the first feed and lack of postnatal assistance with breastfeeding.

Coventry's infant feeding team was established in April 2010. The team offers one to one support to breastfeeding mums in their own home, or at one of the 14 groups that are run city wide providing practical help and support. Around 200 mums attend the support groups each month and to date over 1,000 women have been supported

[16] World Health Organisation. The optimal duration of exclusive breastfeeding. Report of an expert consultation. Geneva, Switzerland 28–30 March 2001

[17] Department of Health (2007) Off to the best start. Important information about feeding your baby. Leaflet.

[18] BL Horta, R Bahl, JC Martines and CG Victora, 2007 Evidence on the long-term effects of breastfeeding. Systematic review and meta-analysis. WHO

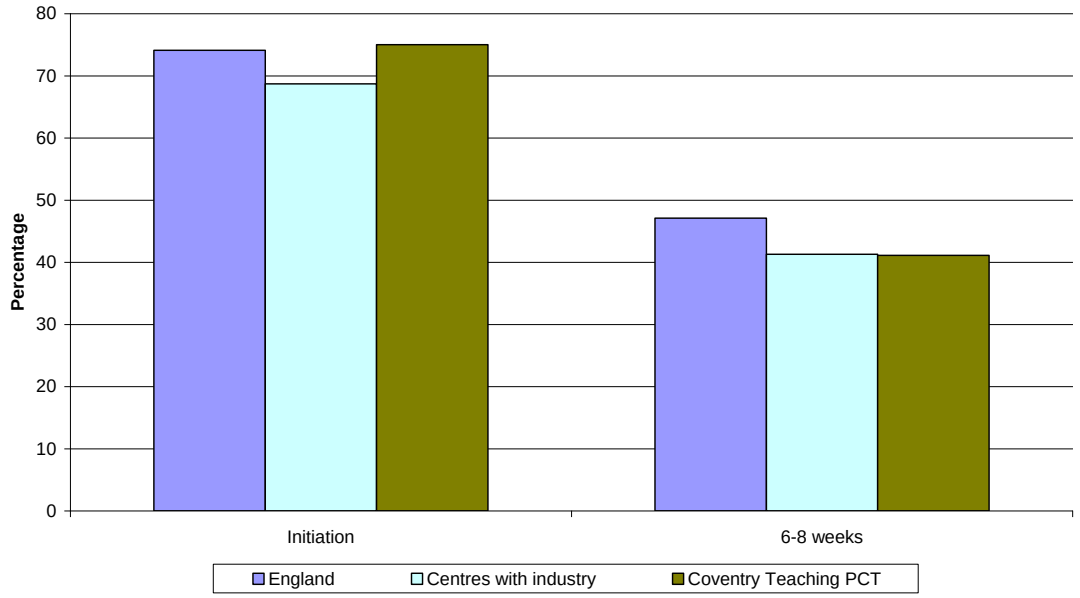
[19] CG Owen, RM Martin, PH Whincup, GD Smith and DG Cook 2006. Does breastfeeding influence risk of type 2 diabetes in later life? A quantitative analysis of published evidence.
Am J Clin Nutr. 2006 Nov; 84(5):1043-54.

[20] UNICEF UK. 2012. Preventing disease and saving resources: the potential contribution of increasing breastfeeding rates in the UK

[21] National service framework for children, young people and maternity services. 2008.

by the team. 61% of these women were still breastfeeding at 6-8 weeks, compared to 41.1% in Coventry as a whole in Q2 2011/12 (see Figure 2.12)

Figure 2.12: The percentage of all mothers initiating breastfeeding and still breastfeeding at 6-8 weeks for the second quarter of 2011/12



Source: DH (Integrated performance return)
NB the percentage for Centres with industry is an average of the percentages of the component PCTs

Support around breastfeeding is seen as a routine part of antenatal and postnatal care, with particular emphasis on supporting mothers with specific needs, for example pre-term birth (there is a support group in the neonatal unit). Antenatal preparation is fundamental in the success of breastfeeding and women are offered workshops or one to one advice and information before they have their babies.

Breastfeeding rates rise faster and are sustained for longer in areas that are baby friendly accredited via the UNICEF accreditation process. The UNICEF UK baby friendly initiative works with NHS organisations by supporting facilities to adopt internationally recognised best standard practices and is a recommendation of NICE[22]. Coventry achieved stage two of the UNICEF accreditation scheme in November 2011, and the team are now working towards stage 3 and full accreditation. The good work of the team needs to be built on going forward to ensure a sustainable model of delivery.

[22] NICE public health guidance 11. Improving the nutrition of pregnant and breastfeeding mothers and children in low-income households. 2008.

Our focus moving forward

In supporting our ambition to give every child born in Coventry the best possible start in life, we need to build on the good work to date, but also scale up our approach. In order to achieve this we need to focus on the development of a local sustainable model moving forward. This will require a co-ordinated and integrated approach, at a community level, working with midwives, health visitors, Children's Centres, GPs, the voluntary sector and parents to promote and improve breastfeeding initiation and duration as part of the local delivery of the Healthy Child Programme.

Healthy Weight

Overweight and obesity represent probably the most widespread threat to health and wellbeing in this country. In Coventry the estimated rates of adult obesity are significantly higher than the national rate, (25.7% in Coventry vs. 24.2% in England). In 2011/12, 24.5% of 4-5 year olds started primary school overweight or obese, rising to 35.5% of 10-11 years olds leaving primary school. These values for school children are significantly higher than the English values. There are clear health inequalities with regard to obesity. A 10-11 year old in the most deprived area of Coventry is almost twice as likely to be obese as a child in the least deprived area. This is also true for adults; obesity is estimated at 32% in Stoke Aldermoor and Ernesford Grange, compared to 16% in Earlsdon.

Excess weight is a major risk factor for diseases such as type 2 diabetes, cancer and heart disease and can reduce life expectancy by 9 years. It is not just related to poor diet but also a lack of regular physical activity. It can reduce people's prospects in life, affecting an individuals' ability to get and hold down work, their self-esteem and their underlying mental health. Excess weight and associated diseases are estimated to cost the NHS, in Coventry, £100 million per year. More broadly, obesity also has a serious impact on economic development.

The Healthy Weight programme is now in its third year, having developed a strategy and action plan to ensure that action is taken across the Coventry community. It is supported by a large investment of funding from the Coventry Health Improvement Programme, leading to the following successes over the past two years:

- 31 cooking clubs allowing people within our communities to learn or develop their cooking skills.
- 9,438 children involved in Food Dudes, reporting evidence based healthy eating behaviour change in Coventry primary school children.
- 54,279 adults and children taking part in physical activity.
- 28 Coventry schools promoting walking either as travel to and from school or within the school day.

As one of the many agencies working to encourage healthy weight, the City Services and Development Directorate host a Public Health Practitioner who is working to ensure that the city planning encourages physical activity and active transportation, and reduces the number of fast food outlets near schools and youth clubs.

Our focus moving forward

Although obesity is showing signs of levelling off in children, it appears to be increasing in adults. This has major impacts on the economic development of the city, the costs to the NHS and to the individual themselves. Therefore, our strategic approach to promoting healthy weight needs to be multidimensional. This will require a variety of approaches and interventions at an individual, family, community, organisational and citywide level:

- Long term evidence based funded programmes need to be set in place by the Local Authority and NHS to support healthy weight and weight management.
- There needs to be action to encourage healthy eating and increase physical activity within the whole community from food retailers to child minders and schools and from city planners to staff in parks and communities, in order to make the healthy option the easy option.

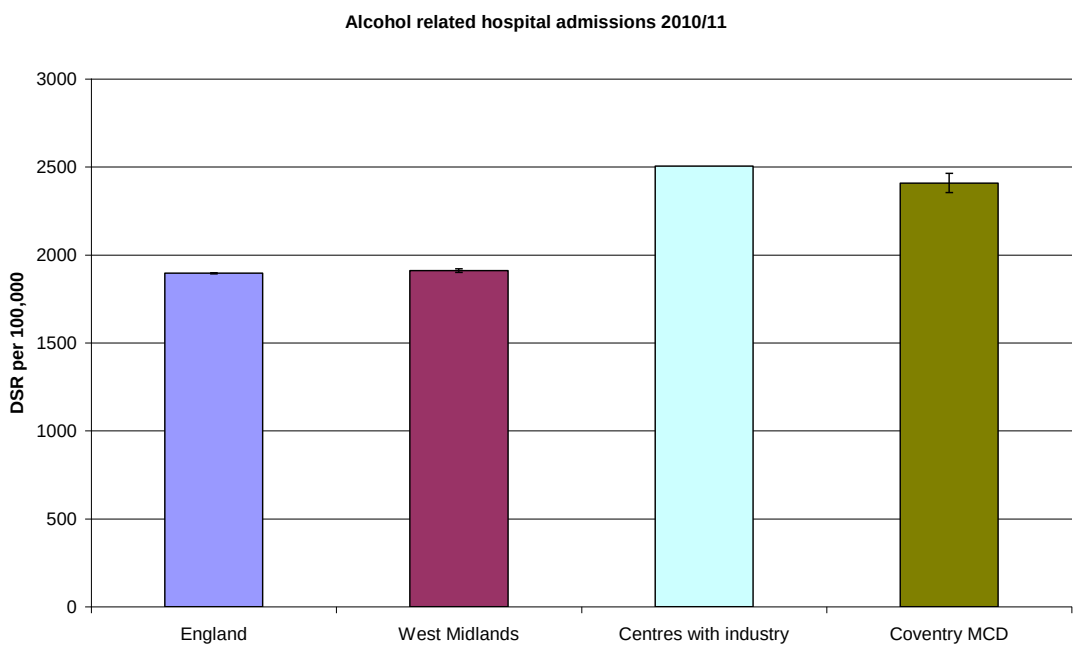
Alcohol-related admissions

Almost a quarter of the English population aged between 16 and 65 (33% of men and 16% of women) consume alcohol in a way which is potentially or actually harmful to their health and wellbeing, and alcohol dependence affects 4% of people[23]. Alcohol misuse is also an increasing problem in children and young people, with over 24,000 treated in the NHS for alcohol-related problems in 2008 and 2009. The pattern of consumption in recent years and decades has changed considerably. The level of alcohol consumption rose considerably from the 1950s until around 2005, but overall consumption has since fallen. More recently, factors including indoor smoking restrictions, have contributed to a significant shift towards drinking at home rather than at a pub.

The Local Alcohol Profiles for England show the harms caused by alcohol in Coventry are more acute than many comparable areas; Coventry experiences significantly worse male alcohol-specific mortality, male mortality from chronic liver disease, female alcohol-attributable mortality and alcohol-related recorded crimes than the England average[24]. This is reflected by the relatively high number of alcohol-related hospital admissions among Coventry residents. 2,408 adults per 100,000 population in Coventry were admitted to hospital for an alcohol-related condition in 2010/11. This is 26% higher than the regional average, though lower than comparable PCTs in the ONS cluster group (See Figure 2.13).

[23] NICE, 2011.Alcohol use disorders: Diagnosis, assessment and management of harmful drinking and alcohol dependence
[24] North West Public Health Observatory. Local Alcohol Profiles for England. www.lape.org.uk

Figure 2.13: Directly standardised rates of hospital admission for alcohol related harm per 100,000 population, 2010/11



Source: APHO Health Profiles
NB the rate for 'Centres with industry' is an average of the rates of the component LAs

Quarterly data indicates that admissions for alcohol continue to rise steadily in Coventry. The alcohol-related admissions indicator comprises both conditions that are wholly attributable to alcohol consumption (such as alcoholic liver disease or alcohol overdose) and conditions that are known to be partially attributable to alcohol (including, heart disease, stroke, some cancers, unintentional injury as well as other conditions)[25]. In Coventry the largest number of alcohol-related admissions is due to hypertension (23% of males; 12% of females), mental and behavioural disorders (12% of males; 5% of females) and cardiac arrhythmias (10% of males; 7% of females), with alcohol-specific conditions contributing just over 5% of male and 3% of female admissions. The most deprived populations of Coventry have more than double the rate of alcohol-related admissions for both males and females, compared with people living in the most affluent areas.

Two key Government documents have been published. The National Drugs Strategy includes alcohol for the first time and promotes the notion of 'recovery' rather than just treatment. The Government's Alcohol Strategy (2012) outlines approaches to reduce the availability of cheap alcohol, increase health considerations within licensing decisions, invest in the most troubled families, and include alcohol screening within the NHS Health Check from 2013.

The Coventry Health Improvement Programme (CHIP) enabled a number of new approaches to be successful trialled. These included alcohol arrest referral, structured day care and treatment as part of a community sentence for offenders. These services are now provided as part of mainstream activities by specialist

[25] L Jones, MA Bellis, D Dedman, H Sumnall and K Tocque. (2008). Alcohol-attributable fractions for England. North West Public Health Observatory.

community services. More recently, the CHIP programme is funding the provision of universal publicity targeting home drinkers, with key messages aimed at behaviour change. In support of these messages we have developed the following initiatives:

- Screening and brief interventions within primary care.
- A triage service in the city centre that operates on Friday and Saturday nights and offers early intervention and support to those drinkers who potentially may end up in the Walk in Centre or A&E.
- A pilot scheme with nurses in A&E targeting alcohol related admission with targeted brief interventions.

These latter initiatives recognise that the issue is now about people drinking more than they should. This client group are not necessarily alcoholics; they are harmful rather than hazardous drinkers, who are more susceptible to changing their behaviour through targeted brief intervention work in the appropriate settings.

Our focus moving forward

The High Impact Changes[26] provides a helpful frame work and focus for our work moving forward. The seven key factors, which provide evidence-based effective approaches to addressing alcohol-related harm and an analysis of their development in Coventry, are listed below:

- Work in partnership.
- Develop activities to control the impact of alcohol misuse in the community.
- Influence change through advocacy.
- Improve the effectiveness and capacity of specialist treatment.
- Appoint an alcohol health worker.
- IBA (early intervention and brief advice). Provide more help to encourage people to drink less.
- Amplify national social marketing priorities.

[26] Department of Health (DH) 2010. Signs for Improvement

Self-Reported Wellbeing

'Self-reported wellbeing' is one of 24 health improvement indicators outlined in the Public Health outcomes framework for 2013-2016. Figure 2.11 shows that in 2011/12 Coventry had significantly higher proportions of people with low satisfaction, low worthwhile and low happiness score. However, it had a lower proportion of people with high anxiety score, though this was not significantly different to England.

Mental wellbeing is an aspect of general wellbeing, which also includes physical and social wellbeing. Mental wellbeing consists of positive psychological functioning, satisfaction with life, happiness, fulfilment, enjoyment, and resilience in the face of hardship. Coventry has been measuring city-wide levels of mental wellbeing since 2009 using the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). The scale is a validated and reliable, positively worded tool assessing mental wellbeing, over a time period of two weeks. The data presented come from a representative sample of Coventry residents (n=3072) who completed WEMWBS as part of the 2011 Coventry Household Survey. Mental wellbeing was measured alongside other health, safety, demographic and neighbourhood questions, allowing the factors associated with mental wellbeing in Coventry to be assessed[27].

The average WEMWBS score for all participants combined was 51.7, this is a higher mean score than the previous year, but it is not significantly higher. Men had higher average levels of mental wellbeing (52.3) than women (51.1) but the difference was not significant. Middle aged women had lower levels of mental wellbeing than the younger or the older women, a trend consistent with last year. There was a significant association between education and mental wellbeing, with higher levels of education associated with higher mental wellbeing scores. Being unemployed was significantly associated with lower levels of mental wellbeing.

There is an association between mental wellbeing and healthy lifestyle. People who exercise regularly and eat a balanced healthy diet have higher levels of mental wellbeing. Sleep quality is also an important factor related to good mental wellbeing. The promotion of healthy lifestyles may improve mental, as well as physical wellbeing.

Life satisfaction was a new addition to the 2011 report. It was strongly associated with mental wellbeing and indicates that the recent shift of focus to subjective quality of life measures, rather than 'objective' measures of income and social status, may provide a more robust understanding of quality of life in Coventry. For the second year in a row, the relationship between Deprivation Quintile and Mental Wellbeing did not show a clear trend.

[27] Analysis was conducted using multivariate linear regression. The statistical models used to investigate these factors have been adjusted for age, gender, socio-demographic variables (education and employment) and limiting long-standing illness /disability.
Neighbourhood characteristics vary between years, in terms of statistical significance and inclusion in men's or women's stratified models. Home satisfaction, night time neighbourhood safety and perception of crime increase are included in the regression models for both years; however significance levels differ by year.

There were similarities and differences in mental wellbeing between 2011 and the previous year's survey, with the majority of the factors associated with mental wellbeing (education, employment, self-rated health, sleep quality, fruit and vegetable consumption) being consistent across both years. Physical activity and life satisfaction were also variables significantly associated with mental wellbeing in this year's survey. Of all the variables included in the analysis, life satisfaction was most strongly associated with mental wellbeing.

Our focus moving forward

Coventry has been at the forefront of measuring wellbeing at a population level. Coventry should continue to monitor mental wellbeing and gain insight into the structure and change of this indicator over time. This monitoring can help to identify emerging trends between mental wellbeing, socio-demographic and health variables in order to take action or provided services in key areas. Local data on well-being should be a key component of our local Joint Strategic Needs Assessments and form an important part of the work of local Health and Well-being Boards. Moving forward, this work should expand to understand the impact of poor mental wellbeing of children and young people and how this impacts on their opportunity to learn.

Self-Harm

Self-harm is an important public health issue, as it is one of the top five causes of acute medical admission and those who self-harm have a 1 in 6 chance of repeat attendance at A&E within the year. Self-harm is an intentional act of self-poisoning or self-injury; it includes suicide attempts as well as acts where little or no suicidal intent is involved (e.g. to reduce internal tension, distract themselves from intolerable situations, communicate distress, or to punish themselves). Though an act of self-harm is a not necessarily an attempt of suicide, a person who repeatedly self-harms is at a higher risk of suicide.

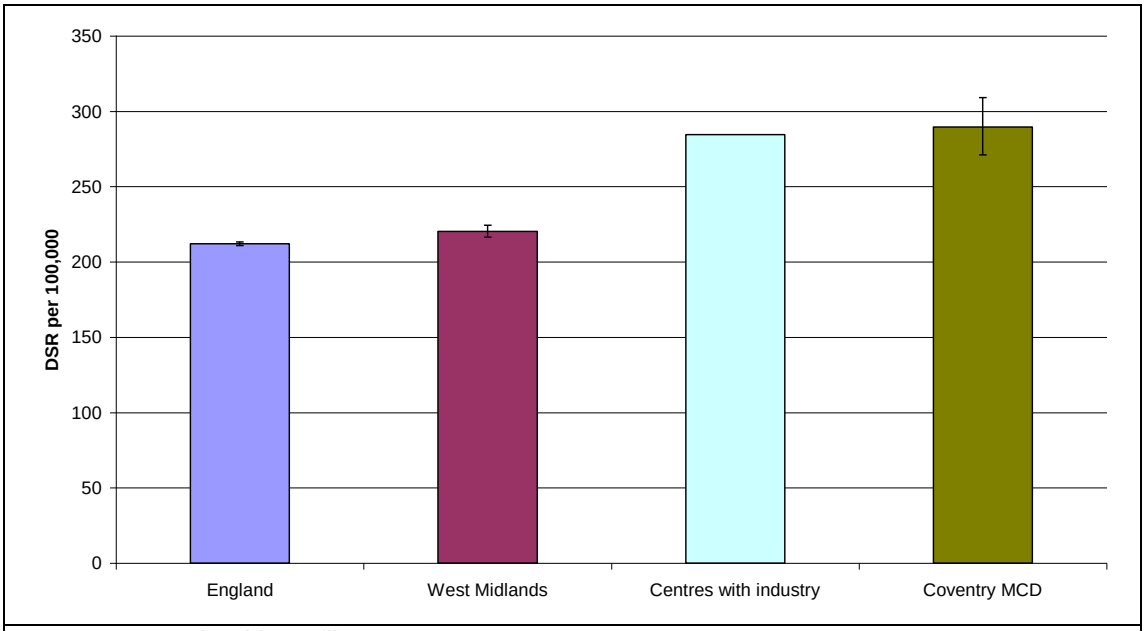
People who self-harm often describe contact with health services as difficult, characterised by ignorance, negative attitudes and, sometimes, punitive behaviour by professionals towards people who self-harm. With the risk of death by suicide being considerably higher among people who have self-harmed and with their high rates of mental health problems, and alcohol and substance misuse, it is essential that healthcare professionals address this experience of care by people who self-harm.

Nationally there were 107,523 admissions for intentional self-harm in 2010/11 and there has been a steady increase in this statistic since 2006/07. Recent national data has shown that early summer has higher than average admissions, while December has the lowest number of recorded admissions. Intentional self-poisoning admissions were most common, with 58,280 admissions among women and 37,750 admissions among men. Intentional self-harm by a sharp or blunt object was the second most common reason, with 4,170 admissions among women and 3,770 admissions among men[28].

In 2010/11 Coventry had significantly higher rates of admission for self-harm than England and West Midlands, but similar rates to the other PCTs in the 'Centres with Industry' (see Figure 2.14). In the previous year (2009/10) Coventry had significantly lower rates than all three comparators, so the rates appear to be fluctuating.

Figure 2.14 Directly standardised rates of admission for self-harm per 100,000 population, 2010/11

[28] Provisional Monthly Hospital Episode Statistics for Admitted patient care, outpatient and Accident & Emergency data: December 2010 - November 2011



Source: APHO health profiles
NB The figure for 'Centres with Industry' is an average of the DSRs of LAs within that cluster group

Our focus moving forward

- People who self-harm repeatedly are at a high and persistent risk of suicide. Suicide rates were highest within the first 6 months after the initial self-harm episode[29].
- Many people who self-harm do not attend hospital.
- The local data on self-harm is currently poorly understood.

The evidence on effective ways to help people who self-harm is at an early stage of development. More evidence is required to indicate the most effective care for this large patient population. Promising results have been found for:

- Problem-solving therapy; provision of a card to allow emergency contact with services.
- Depot flupenthixol (an antipsychotic drug) for recurrent repeaters of self-harm.
- Long-term psychological therapy for female patients with borderline personality disorder and recurrent self-harm[30].

Therefore our focus moving forward should be on understanding the impact of self-harm in Coventry. This will require a health needs assessment to be undertaken.

[29] Royal College of Psychiatrists College Report CR158 June 2010 Self-harm, suicide and risk: helping people who self-harm Final report of a working group
[30] Psychosocial and pharmacological treatments for deliberate self-harm. Cochrane Review; Hawton KKE, Townsend E, Arensman E, Gunnell D, Hazell P, House A, van Heeringen K. Published Online: January 21, 2009

Domain 3: Health Protection

The focus of health protection is to ensure the population's health is protected from infectious disease, major incidents and other threats, while reducing health inequalities. We have witnessed is a changing pattern since the 1970s. The spine chart for the health protection domain is shown in Figure 2.15.

Figure 2.15: Domain 3, Health Protection

Public Health Outcomes Framework

Coventry

	Health protection	Period	Local value	Eng. value	Eng. lowest	Range	Eng. highest
3.01	Fraction of mortality attributable to particulate air pollution	2010	6.20	5.60	3.60		8.30
3.02	Chlamydia diagnoses (15-24 year olds)	2011	1,687	2,125	783		5,995
3.03i	Population vaccination coverage - Hepatitis B (1 year old)	2011/12	100	-	-100		100
3.03i	Population vaccination coverage - Hepatitis B (2 years old)	2011/12	100.0	-	2.6		100.0
3.03iii	Population vaccination coverage - Dtap / IPV / Hib (1 year old)	2011/12	97.1	94.7	84.9		98.8
3.03iii	Population vaccination coverage - Dtap / IPV / Hib (2 years old)	2011/12	98.2	96.1	85.7		98.8
3.03iv	Population vaccination coverage - MenC	2011/12	96.3	93.9	81.4		98.6
3.03v	Population vaccination coverage - PCV	2011/12	96.7	94.2	83.8		98.6
3.03vi	Population vaccination coverage - Hib / MenC booster (2 years old)	2011/12	93.3	92.3	75.7		97.3
3.03vi	Population vaccination coverage - Hib / Men C booster (5 years)	2011/12	93.0	88.6	0.0		97.6
3.03vii	Population vaccination coverage - PCV booster	2011/12	95.0	91.5	74.7		97.0
3.03viii	Population vaccination coverage - MMR for one dose (2 years old)	2011/12	94.6	91.2	78.7		97.2
3.03ix	Population vaccination coverage - MMR for one dose (5 years old)	2011/12	97.3	92.9	79.8		98.0
3.03x	Population vaccination coverage - MMR for two doses (5 years old)	2011/12	93.3	86.0	69.7		95.3
3.03xii	Population vaccination coverage - HPV	2011/12	90.4	86.8	62.3		97.2
3.03xiii	Population vaccination coverage - PPV	2011/12	64.6	68.3	52.8		76.6
3.03xiv	Population vaccination coverage - Flu (aged 65+)	2011/12	70.8	74.0	64.8		81.5
3.03xv	Population vaccination coverage - Flu (at risk individuals)	2011/12	52.1	51.6	43.4		66.3
3.04	People presenting with HIV at a late stage of infection	2009 - 11	61.5	50.0	0.0		75.0
3.05i	Treatment completion for TB	2011	80.0	84.3	55.6		98.3
3.05ii	Treatment completion for TB - TB incidence	2009 - 11	30.7	15.4	1.1		137.0
3.06	Public sector organisations with a board approved sustainable development management plan	2011/12	80	84	20		100

3.01 - Fraction of all-cause adult mortality attributable to long-term exposure to current levels of anthropogenic particulate air pollution **3.02** - Crude rate of chlamydia diagnoses per 100,000 young adults aged 15-24 **3.03i** - % of eligible children who received 4 doses of Hepatitis B vaccine at any time by their 1st/2nd birthday **3.03iii** - % of eligible children who received 3 doses of DTaP/IPV/Hib vaccine at any time by their 1st/2nd birthday **3.03iv** - % of eligible children who have received the completed course of Men C vaccine by their 1st birthday **3.03v** - % of eligible children who have received the complete course of PCV vaccine by their 1st birthday **3.03vi** - % of eligible children who have received one booster dose of Hib/Men C vaccine by their 2nd/5th birthday **3.03vii** - % of eligible children who have received one booster dose of PCV vaccine by their 2nd birthday **3.03viii** - % of eligible children who have received one dose of MMR vaccine on or after their 1st birthday and at any time up to their second birthday **3.03ix** - % of eligible children who have received one dose of MMR vaccine on or after their 1st birthday and at any time up to their 5th birthday **3.03x** - % of eligible children who have received two doses of MMR vaccine on or after their 1st birthday and at any time up to their 5th birthday **3.03xii** - % of girls aged 12-13 who have received all 3 doses of the HPV vaccine **3.03xiii** - % of eligible adults aged 65+ who have received the PPV vaccine **3.03xiv** - % of eligible adults aged 65+ who have received the flu vaccine **3.03xv** - % of at risk individuals aged 6 months 65 years (excluding pregnant women) who have received the flu vaccination **3.04** - % of adults (aged 15+) newly diagnosed with HIV with a CD4 count <350 cells per mm3 **3.05i** - % of people completing treatment for TB within 12 months prior to 31st December **3.05ii** - Rate of reported new cases of TB per year per 100,000 population **3.06** - % of NHS organisations with a board approved sustainable development management plan

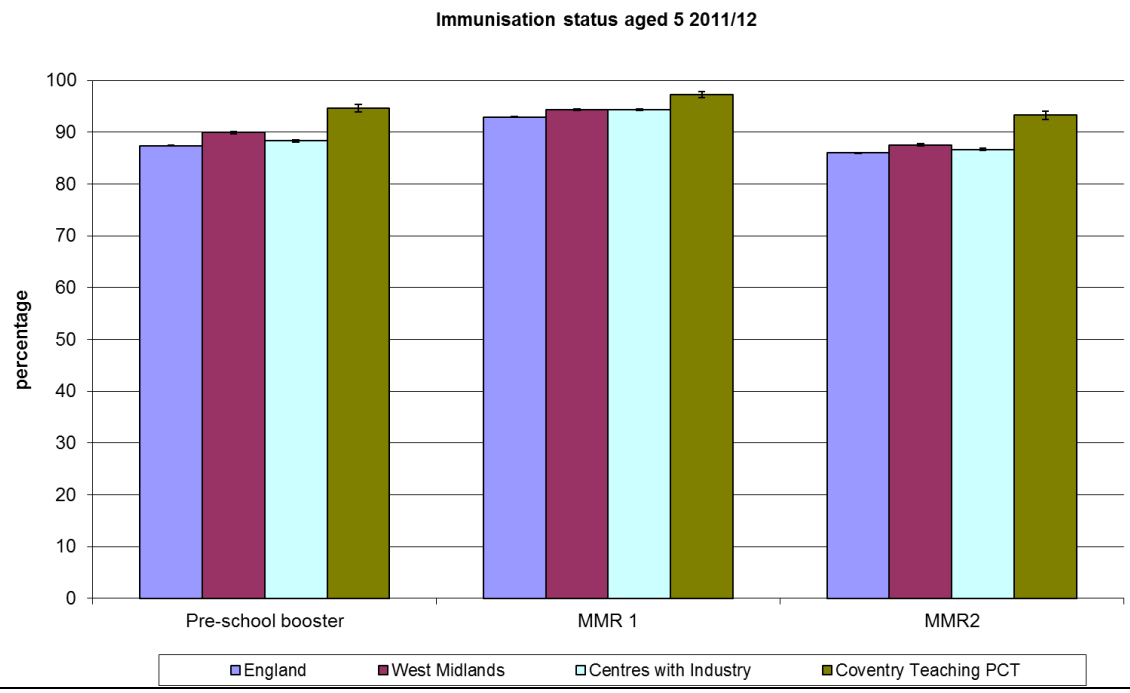
Childhood Immunisation 0-18yrs

Immunisation is the most simple and cost-effective public health intervention that reduces the numbers of death and illness by preventable diseases. The National Universal Childhood Immunisation Programme offers protection against the following diseases:

- Diphtheria, Polio, Pertusis, Tetanus
- Meningitis C, Haemophilius influenzae Type B (Hib), Pneumococcal disease
- Measles, Mumps, Rubella
- Human Papiloma Virus (HPV) which causes Cervical Cancer

It is important that children also receive booster immunisations at appropriate times to ensure continued protection against these diseases throughout childhood and adult life. NHS Coventry made a marked improvement in its uptake of immunisation from the end of 2009, and to date this has been sustained or improved upon in all vaccination programmes year on year. The immunisation uptake by 5th birthday is shown in Figure 2.16, and for all three vaccinations Coventry has a significantly higher rate than England, West Midlands and Centres with Industry.

Figure 2.16 Percentage of children immunised by their 5th birthday, 2011/12



Source: The Health and Social Care Information Centre, COVER 2011/12

Despite achieving excellent immunisation uptake, and moving from one of the worst performing PCTs outside of London to one of the better, Coventry is still committed to further improvements and innovative ways to improve immunisation. For example, we are currently trialling a 'home based' vaccination service to target the 'hard to reach' children, who have missed several immunisation appointments with their GPs.

HPV vaccination Programme

The programme is currently targeted at girls in school year 8. In 2011/12, the uptake for the 1st vaccination was 92%, the 2nd vaccination was 91%, and the 3rd vaccination was 91%. Coventry has a significantly higher rate of vaccination than England.

School leaver booster (Year 10)

Pupils in year 10 were offered a school based immunisation programme for the Diphtheria, Tetanus and Polio booster. In 2011, the total uptake was 90%, (12% vaccination occurred in GP practices, 78% in school or 'mop up' clinic setting). This is an improvement on the previous year's uptake of 79%.

Our focus moving forward

It is crucial in this time of change that current good performance does not dip. Changes in the commissioning arrangements will need to be monitored during transition in 2013, as responsibility for monitoring uptake and delivery of immunisations has moved from the Primary Care Trust to Public Health England and NHS England.

The Coventry and Rugby Clinical Commissioning Group supported by the area team of NHS England should continue to build on the excellent work to date in improving immunisation uptake. There should be a specific focus on supporting those practices where sub optimal levels of uptake exist and children remain at risk of preventable disease.

HIV in Coventry

The late HIV diagnosis indicator is essential to evaluate and promote public health and prevention efforts, to tackle the impact of HIV infection. Over half of patients newly diagnosed in the UK are diagnosed late and 90% of deaths among HIV positive individuals, within 1 year of diagnosis, are among those diagnosed late. Inclusion of this indicator in the Public Health Outcomes Framework will focus efforts to expand HIV testing and to reduce late HIV diagnoses in the UK. Without a reduction in late HIV diagnosis, consequences may include continued high levels of short-term mortality in those diagnosed late, poor prognosis for individuals diagnosed late, onward transmission of HIV and higher healthcare costs.

Although the development of effective treatments for HIV has meant that life expectancy for people with HIV has increased by 13 years between 1996 and 2005, HIV remains an incurable condition. HIV treatment expenditure accounts for approximately 40% of the annual spending on infectious diseases nationally, costing approximately £760 million in 2009/10, with average expenditure around £12,500 per patient. Lifetime treatment costs are estimated at between £280,000 and £360,000. Nationally, the number of new cases has fallen from 7,824 in 2005 to 6,150 in 2011. This fall appears to be due to a decrease in the number of cases acquired abroad, and it masks a rise in new cases acquired in the UK. Nationally there has also been a slight fall in the number of cases acquired by men who have sex with men, although the number of new cases in this group are still nearly twice as high as in the 1980s and 90s.

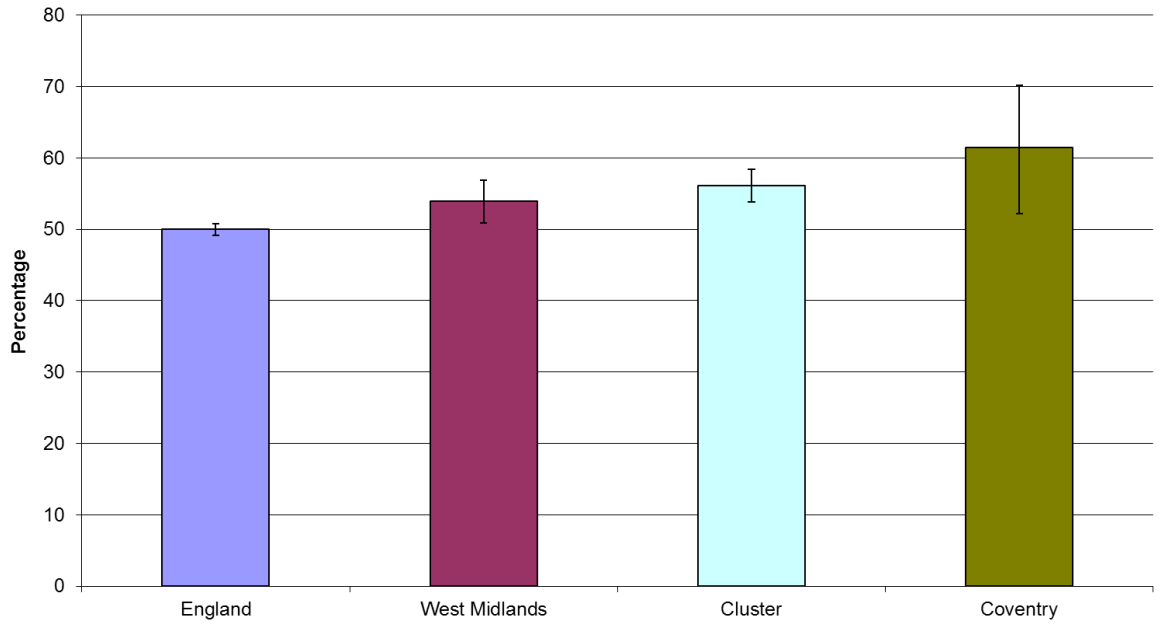
Coventry has the second highest prevalence of HIV in the West Midlands with 2.7 per 1000 people living with HIV in the city, and 44 new cases of HIV detected in 2010. HIV continues to predominantly affect minority groups, including people from high prevalence countries (such as sub-Saharan Africa), men who have sex with men, and intravenous drug users. Within some of these communities, notably certain ethnic groups, stigma, poor access to health services and language barriers may lead to significant delays in being tested for HIV, leading to late diagnosis which is associated with poorer health outcomes.

Coventry has a disproportionately larger percentage of women with HIV than England, and a lower proportion of men who have sex with men. Within Coventry, the highest numbers of people accessing HIV related care (a proxy measure for HIV prevalence) are resident in Foleshill, St Michael's, Lower Stoke and Binley and Willenhall.

Coventry also has the 2nd highest proportion of late diagnoses in the West Midlands, with 61.5% of diagnoses with reported CD4 counts of less than 350/mm (West Midlands total 53.9%) as shown in Figure 2.17. Coventry has a significantly higher proportion of late diagnosis than England (50%), which is important because life expectancy is reduced for people with late diagnosis, and the risk of onwards transmission is increased. From a public health perspective, people unaware of their HIV positive status account for around half of onward transmission of HIV, have an estimated three times higher transmission rate, and are more than twice as likely to have unprotected sex. Costs of a late diagnosis and subsequent HIV care are twice

as high in the year following diagnosis and 50% higher in subsequent years than a non-late diagnosis, due to increased hospital admission rates and treatment costs.

Figure 2.17: Percentage HIV diagnoses with CD4 cell count < 350mm at time of diagnoses, 2009-11



Source: PHOF

The problem of HIV prevalence and late diagnoses is taken very seriously in Coventry, reflected by Coventry's Health and Well Being Board including the reduction of late diagnoses as one of its twelve priorities for the city. Last year, Coventry conducted a comprehensive investigation into the reasons underlying these problems. What we found was that HIV is concentrated in very specific groups and is reflective of our migration patterns into the city from countries with high levels of HIV in their populations. Often infection with HIV has happened before people arrive in the city. Some of these groups are amongst the 'hardest to reach' being affected by socioeconomic deprivation and community stigma surrounding HIV, making it more difficult to diagnose people early.

This pattern of HIV in Coventry has enabled us to target our resources more effectively at these groups. Following on from this work, a new strategy was created for the city dealing with prevention of HIV based on both local need and national guidance. As a result, a new contract for HIV prevention across both Coventry and Warwickshire was awarded to Terence Higgins Trust which reflected the urgent need for increased community testing, early detection and working with the groups where we know HIV to be a problem.

This work has been conducted alongside our work done with colleagues in Genito-Urinary Medicine to increase testing for HIV in general practice, and a new protocol to make testing easier in general practice was introduced last year. In Coventry, there is a general practice centre dealing with the specific needs of asylum seekers

and refugees, some of whom are at a higher risk of HIV, and routine testing is available on arrival.

Funding for HIV services has been protected following Public Health's move to Local Authority. There are now multiple work-streams around early detection and prevention of HIV in the city. However, as a consequence of this we expect to see a rise in the number of cases reported in the foreseeable future, as we detect those cases in the community which have not yet been identified.

Our focus moving forward

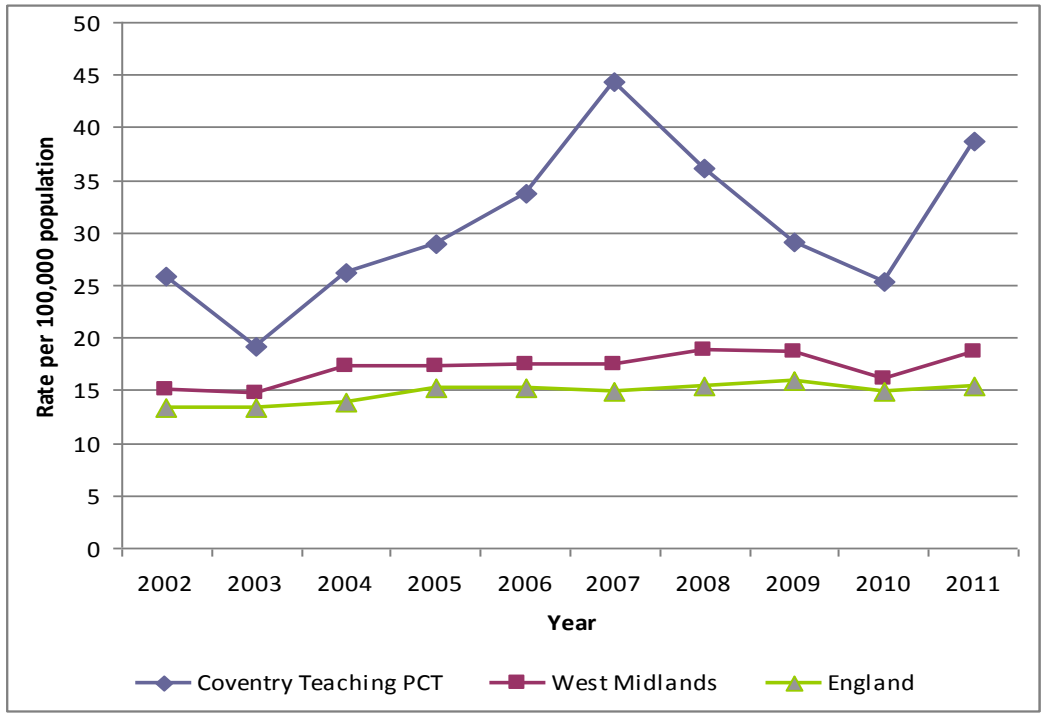
We need to build on the work already underway to increase levels of testing locally. In particular, this should focus on:

- Implementing a pilot of universal HIV testing in the Acute Medical Unit at UHCW to identify whether this would increase the number of cases identified early.
- Working with the CCG to implement testing of all new patients, particularly in parts of the city which have a higher prevalence.
- Evaluating the impact of a local pilot to expand community HIV testing by the HIV charity the Terence Higgins Trust (THT).
- Expanding community testing based on the pilot carried out by THT (Local Authority).
- Evaluating the impact of community small grants to reduce stigma and promote testing through local community organisations. (Local Authority).
- Continuing to promote safe sex and condom usage via the expansion of the local C-card Scheme. (Local Authority).

Tuberculosis (TB)

TB has re-emerged as a serious public health problem in the UK over the last two decades, with TB incidence rising above the European average. Timely treatment for TB is key to saving lives and preventing long-term ill health, as well as reducing the number of new infections and development of drug resistance. Preventing the development of drug resistant TB is particularly important, as it has more severe health consequences and is considerably more expensive to treat. TB cases in Coventry increased in 2011, with 122 cases being notified. This is a rate of just under 40 per 100,000, which is the level at which universal neonatal immunisation is recommended in England. There were 12 male deaths and no female deaths from TB in Coventry for the period 2008-10.

Figure 2.18: TB notification rates 2002 to 2011



Source: HPA

The incidence of this disease is still on the increase in Coventry. 75% of cases were non-UK born; these are in predominantly Black African and Asian people. 80% of patients with TB completed their course of treatment in 2011, which is not significantly different to the English rate. This is an improvement compared with the period 2007 to 2009 when completion rates were at 75%.

Our focus moving forward

There is a lack of awareness about TB in the general population and health care professionals. Screening systems are poorly developed for detecting infections in immigrants, particularly from countries where the incidence is above 150 per 100,000. There are relatively high numbers of deaths from TB in Coventry particularly in males. Therefore, an audit of TB deaths should be undertaken involving the whole health economy. This audit should be overseen by the TB Network. In secondary care, multidisciplinary meetings should be held to ensure that the recently agreed TB care pathway is being implemented.

Domain 4: Healthcare and preventing premature mortality

Premature mortality (under 75) can be defined in terms of causes that are considered to be preventable through individual behaviour or public health measures, limiting individual exposure to harmful substances or conditions. Examples include lung cancer, illicit drug use disorders, land transport accidents and certain infectious diseases. The inclusion of these indicators in the PHOF (alongside the indicator on mortality from causes considered amenable to healthcare in the NHS Outcomes Framework) sends out a clear signal of the importance of prevention as well as treatment in reducing avoidable deaths. The spine chart for the Healthcare and preventing premature mortality domain is shown in Figure 2.19.

As we have shown early in this report, there have been huge improvements in terms of the effectiveness of healthcare interventions since the 1970s. However, given our aging population and the rise in long term conditions, there is still more we can do in stopping people dying prematurely, but more importantly, keeping people active and independent for as long as possible. Therefore, the focus of this work is to reduce the numbers of people living with preventable ill health and people dying prematurely, while reducing the gap between communities. As our population gets older, we need to ensure that they remain healthy for as long as possible improving the quality of later life.

Figure 2.19: Domain 4, Health Care and Premature Mortality

Public Health Outcomes Framework

Coventry

	Healthcare and premature mortality	Period	Local value	Eng. value	Eng. lowest	Range	Eng. highest
4.03	Mortality rate from causes considered preventable (provisional)	2009 - 11	177.2	146.1	100.7		264.2
4.04i	Under 75 mortality rate from all cardiovascular diseases (provisional)	2009 - 11	66.9	62.0	40.3		116.0
4.04ii	Under 75 mortality rate from cardiovascular diseases considered preventable (provisional)	2009 - 11	41.6	40.6	23.0		75.1
4.05i	Under 75 mortality rate from cancer (provisional)	2009 - 11	121.2	106.7	82.5		152.0
4.05ii	Under 75 mortality rate from cancer considered preventable (provisional)	2009 - 11	75.9	61.9	45.2		98.1
4.06i	Under 75 mortality rate from liver disease (provisional)	2009 - 11	17.4	14.4	8.7		39.3
4.06ii	Under 75 mortality rate from liver disease considered preventable (provisional)	2009 - 11	15.6	12.7	7.5		37.0
4.07i	Under 75 mortality rate from respiratory disease (provisional)	2009 - 11	35.0	23.4	13.7		62.0
4.07ii	Under 75 mortality rate from respiratory disease considered preventable (provisional)	2009 - 11	17.3	11.6	5.3		28.6
4.08	Mortality from communicable diseases (provisional)	2009 - 11	30.7	29.9	22.0		54.9
4.10	Suicide rate (provisional)	2009 - 11	10.6	7.9	4.3		13.9
4.11	Emergency readmissions within 30 days of discharge from hospital	2010/11	12.6	11.8	8.1		13.8
4.11	Emergency readmissions within 30 days of discharge from hospital - Male	2010/11	13.1	12.1	8.6		14.8
4.11	Emergency readmissions within 30 days of discharge from hospital - Female	2010/11	12.2	11.4	7.2		13.2
4.12i	Preventable sight loss - age related macular degeneration (AMD)	2010/11	55.9	109.4	10.0		224.4
4.12ii	Preventable sight loss - glaucoma	2010/11	6.6	11.8	0.0		36.9
4.12iii	Preventable sight loss - diabetic eye disease	2010/11		3.6	0.0		12.9
4.12iv	Preventable sight loss - sight loss certifications	2010/11	22.5	43.1	2.9		85.7
4.14i	Hip fractures in people aged 65 and over	2011/12	488.8	457.2	337.9		599.5
4.14ii	Hip fractures in people aged 65 and over - aged 65-79	2011/12	253.1	222.2	135.7		346.7
4.14iii	Hip fractures in people aged 65 and over - aged 80+	2011/12	1,550	1,515	993		2,021

4.03 - Age-standardised rate of mortality from causes considered preventable per 100,000 population **4.04i** - Age-standardised rate of mortality from all cardiovascular diseases (incl. heart disease and stroke) in those aged <75 per 100,000 population **4.04ii** - Age-standardised rate of mortality considered preventable from all cardiovascular diseases (incl. heart disease and stroke) in those aged < 75 per 100,000 population **4.05i** - Age-standardised rate of mortality from all cancers in those aged <75 per 100,000 population **4.05ii** - Age-standardised rate of mortality considered preventable from all cancers in those aged < 75 per 100,000 population **4.06i** - Age-standardised rate of mortality from liver disease in those aged < 75 per 100,000 population **4.06ii** - Age-standardised rate of mortality considered preventable from liver disease in those aged < 75 per 100,000 population **4.07i** - Age standardised rate of mortality from respiratory disease in those aged <75 per 100,000 population **4.07ii** - Age-standardised rate of mortality considered preventable from respiratory disease in those aged < 75 per 100,000 population **4.08** - Age-standardised rate of mortality from communicable diseases per 100,000 population **4.10** - Age-standardised mortality rate from suicide and injury of undetermined intent per 100,000 population **4.11** - Indirectly standardised % of emergency admissions to any hospital within 30 days of the previous discharge from hospital **4.12i** - Crude rate of sight loss due to age related macular degeneration (AMD) in those aged 65+ per 100,000 population **4.12ii** - Crude rate of sight loss due to glaucoma in those aged 40+ per 100,000 population **4.12iii** - Crude rate of sight loss due to diabetic eye disease in those aged 12+ per 100,000 population **4.12iv** - Crude rate of sight loss per 100,000 population **4.14i** - Age-sex standardised rate of emergency admissions for fractured neck of femur in those aged 65+ per 100,000 population **4.14ii** - Age-sex standardised rate of emergency admissions for fractured neck of femur in those aged 65-79 per 100,000 population **4.14iii** - Age-sex standardised rate of emergency admissions for fractured neck of femur in those aged 80+ per 100,000 population

Mortality by causes

The spine chart shows that in 2009-11 Coventry had significantly higher death rates than England for Mortality from causes considered preventable; under 75 death rates for cancer, liver disease, and respiratory disease; and suicide. Only those indicators reported in the PHOF are available for 2009-11, so Table 2.1 show an analysis of mortality for all age groups and Table 2.2 for the under 75s by gender for the period 2008-10.

Table 2.1: Mortality for all ages in Coventry which is statistically significantly different from England 2008-10

Significantly higher than England		**Significance**		
Disease	**ICD 10 code**	**Male**	**Female**	**Person**
All causes	A00-Y99	higher	higher	higher
Acute myocardial infarction(heart attack)	I21-I22	higher		higher
Hypertensive disease (high BP)	I10-I15		higher	higher
All cancers	C00-C97		higher	higher
Lung cancer	C33-C34			higher
Stomach cancer	C16		higher	higher
Bronchitis, emphysema and other COPD	J40-J44	higher	higher	higher
Asthma	J45-J46	higher		higher
Chronic liver disease including cirrhosis	K70, K73-K74	higher		higher
Diabetes	E10-E14	higher	higher	higher
Epilepsy	G40-G41			higher
Infectious and parasitic disease	A00-B99	higher	higher	higher
Tuberculosis	A15-A19	higher		higher
Suicide and injury undetermined	X60-X84, Y10-Y34 (excluding Y33.9)		higher	higher
Significantly lower than England		**Significance**		
Disease	**ICD 10 code**	**Male**	**Female**	**Person**
Coronary heart disease	I20-I25		lower	
Ischaemic disease other than acute myocardial infarction	I20, I23-I25	lower	lower	lower
Stroke	I60-I69		lower	
Pneumonia	J12-J18			lower

Table 2.2: Mortality in people aged less than 75 in Coventry, which is statistically significantly different from England 2008-10				
Significantly higher than England		**Significance**		
Disease	**ICD 10 code**	**Male**	**Female**	**Person**
All causes	A00-Y99	higher	higher	higher
All circulatory diseases	I00-I99	higher		higher
Acute myocardial infarction	I21-I22	higher		higher
All cancers	C00-C97		higher	higher
Lung cancer	C33-C34		higher	higher
Stomach cancer	C16	higher	higher	higher
Bronchitis, emphysema and other COPD	J40-J44	higher	higher	higher
Pneumonia	J12-J18		higher	higher
Chronic liver disease including cirrhosis	K70, K73-K74	higher		higher
Diabetes	E10-E14	higher		higher
Epilepsy	G40-G41			higher
Infectious and parasitic disease	A00-B99	higher	higher	higher
Tuberculosis	A15-A19	higher		higher
Suicide and injury undetermined	X60-X84, Y10-Y34 (excluding Y33.9)		higher	

Summary of mortality analysis

All ages

For both sexes, all-cause mortality, COPD, diabetes and infectious disease death rates were higher than the national and regional rates in 2008-10. For males, death rates for AMI, asthma, chronic liver disease and TB are higher than regional and national rates. For females, death rates for high blood pressure, all cancers, stomach cancer and suicides are higher than regional and national figures.

Under 75s

For both sexes all-cause mortality, stomach cancer, COPD and infectious disease death rates are higher than the national and regional rates in 2008-10. For males, death rates for circulatory diseases, AMI, chronic liver disease, diabetes, and TB are higher than regional and national rates. For females, death rates for all cancers, lung cancer, pneumonia and suicides are higher than regional and national figures.

Cardiovascular deaths make up a quarter of all deaths each year while respiratory (lung cancer and COPD) account for approximately 10% of deaths; continuing to focus on these areas will bring the greatest health benefits to the population. Infectious disease related deaths, though small in number, need to also be given priority, as many of these deaths will be avoidable.

Respiratory disease mortality

Smoking cessation continues to be a priority to reduce deaths from both lung cancer and COPD. For COPD there is evidence of under diagnosis and sub-optimal treatment in primary care and high mortality in secondary care. The UK recently came bottom of a European Audit of inpatient mortality for COPD, and the West Midlands lags behind other regions in England.

Our focus moving forward

There is a need to focus on improving the quality and management of COPD across primary and secondary care. There is also a need to raise awareness of COPD diagnosis in the public and healthcare professionals. In order to achieve this, an audit of admissions should be undertaken at UHCW to see how many patients are undiagnosed on presentation to hospital.

Cardiovascular disease mortality

Cardiovascular disease (CVD) is the main cause of death in Coventry and England, including premature death and it makes a large contribution to health inequalities. The Quality and Outcomes Framework (QOF) which rewards GPs for the quality of their care, contains many indicators to improve the outlook for patients with cardiovascular disease. Unfortunately, many of the thresholds set for achieving the maximum QOF points may mean that 10-30% of patients are not adequately treated.

Our focus moving forward

In order to improve the management and care of patients with CVD in primary care there is a need to encourage practices to offer evidence based treatments to all of their patients identified as ‘at risk’ for CVD.

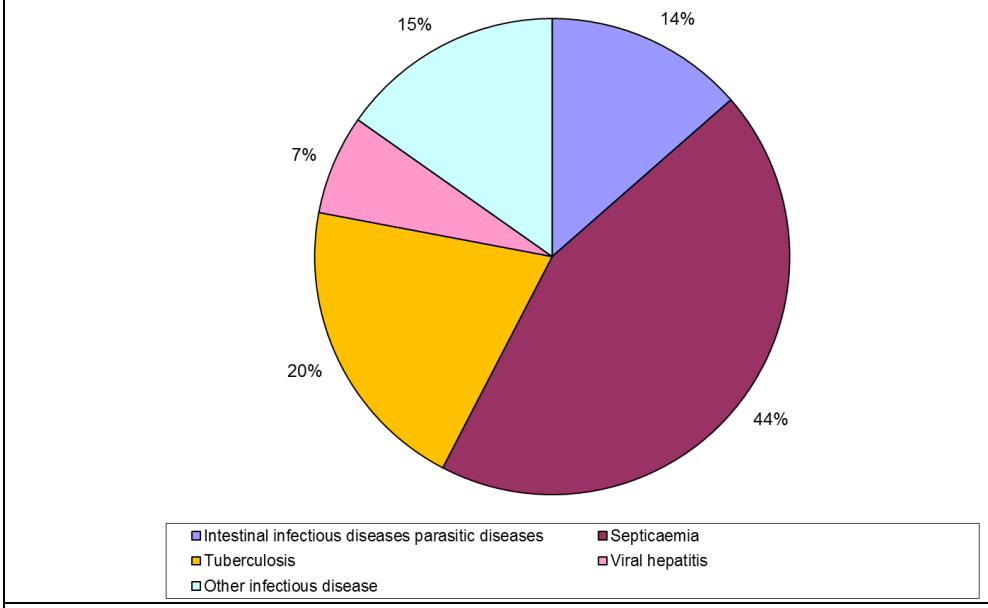
A number of actions should be implemented locally:

- NHS England and CCGs need to focus on developing a plan to improve QOF uptake for CVD.
- Public Health (CCC) need to ensure all GP practices sign up to deliver the Health Checks programme locally.
- Public Health (CCC) to continue to implement the Make Every Contact Count (MECC) initiative in the city across all public sector organisations.

Infectious Disease mortality

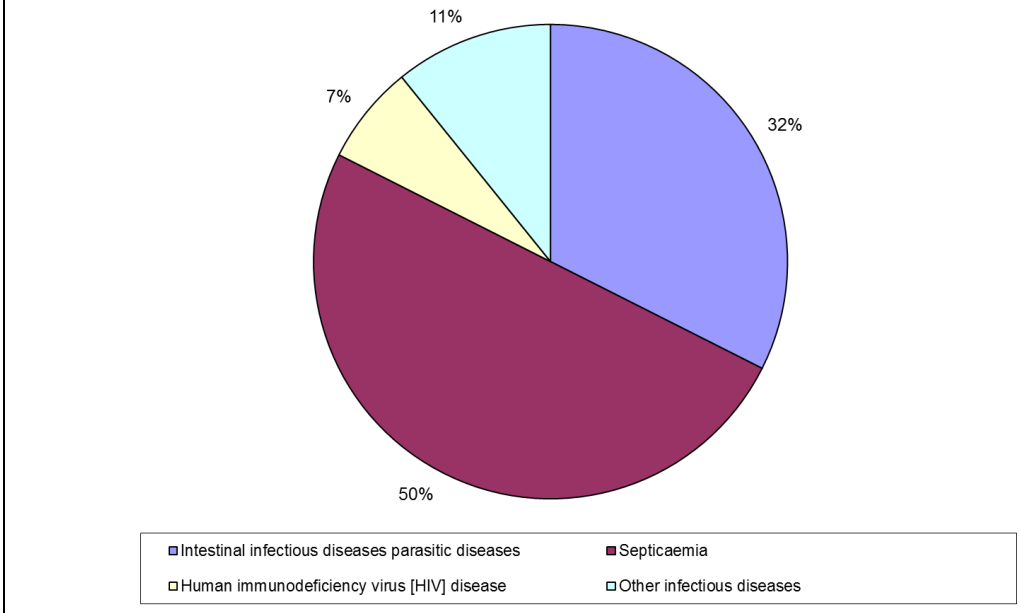
There were 133 deaths due to infectious or parasitic disease during the period 2008-10. These deaths accounted for 1.5% of all male deaths and 1.8% of all female deaths. The main causes of male deaths due to infectious disease are shown in the Figure 2.20, and female deaths are shown in Figure 2.21. Septicaemia (infection of the blood) and intestinal infectious disease continue to be significant causes of mortality in both males and females, particularly in the elderly.

Figure 2.20: Mortality due to infectious disease in males 2008-10



Source: ONS

Figure 2.21: Mortality due to infectious disease in females 2008-10



Source: ONS

Our focus moving forward

Previous work has shown that many of the intestinal infections can be attributed to infection with *C. Difficile*. Further action is required in Primary Care to limit the use of antibiotics known to be associated with *C.Difficile*. Therefore, primary care practices should work in collaboration with the Medicines Management Team to drive change and reduce both inappropriate antibiotic choice and prescribing volume. There is also further work to be done in secondary care to improve compliance with the initiation of the sepsis pathway. If we are going to meet this challenge in Coventry then we need to ensure that we drive up the quality of care, by intervening early and delivering excellent management of preventable illness as well as their causes.

Summary of Part 2

The second part of my report has focused on some the key health challenges that the people of Coventry face today. By using the following domains of the Public Health Outcomes Framework:

- Wider determinants of health
- Health Improvement
- Health Protection
- Health care and premature mortality

We have explored some of the key health issues in more detail, to understand what they really tell us about the health of the people of Coventry today.

Firstly, we know that health outcomes in Coventry are either average or below average compared to the rest of England. We also know that these inequalities exist within the city, with a life expectancy gap of 12 years between the most affluent and deprived parts of the city.

Secondly, we know that inequalities and the broader social determinants of health are the main drivers of these poor outcomes in Coventry. These include where you are born, where you go to school, whether you have a job or not, where you live, whether you have access to open space, whether you have access to services and where you grow old. These all impact on our sense of health and well-being.

Thirdly, we know that lifestyle choices and behaviours early in a person's life have an impact in later life. Far too many people in the city die early from preventable illness and disease, most notably from cancer, heart disease, high blood pressure, stroke, lung disease and infectious diseases. We know we can do better in supporting people to take control of their lifestyle choices, be it smoking, alcohol, diet or exercise.

Finally, through the Marmot City work the Local Authority, Clinical Commissioning Group and other major stakeholders have committed to, there is a collective will to address some of these long standing inequalities by looking at a whole society approach across the course of one's life, from the cradle to the grave.

PART 3: The Health of Coventry 40 years from now: What are the health challenges in the 21st Century?

The first two parts of this report dealt with the health of the people in Coventry in 1970 and in 2010. In the final part of my report, I will try and take a look in to the future to see what the health of Coventry is like 40 years from now. This vision of the future looks at what we can all do now to make a difference to the health of the city at an individual, family, community and organisational level.

The previous section has shown the difference in life expectancy along two of the bus routes in Coventry. This section will look at what can be done now, to ensure that any child born today in Coventry has an equal chance, wherever he or she is born.

The White Paper Healthy Lives Healthy People[31] stated that 'people living in the poorest areas will on average die 7 years earlier than people living in the richer areas and spend 17 years more living with ill health'. The Marmot Review[32] stated 'Health inequalities result from social inequalities. Action on health inequalities requires action across all the social determinants of health'. It outlined six policy objectives to enable people in the poorer areas to have a chance at achieving their potential:

1. Give every child the best start in life
2. Enable all children young people and adults to maximise their capabilities and have control over their lives
3. Create fair employment and good work for all
4. Ensure healthy standard of living for all
5. Create and develop healthy and sustainable places and communities
6. Strengthen the role and impact of ill health prevention

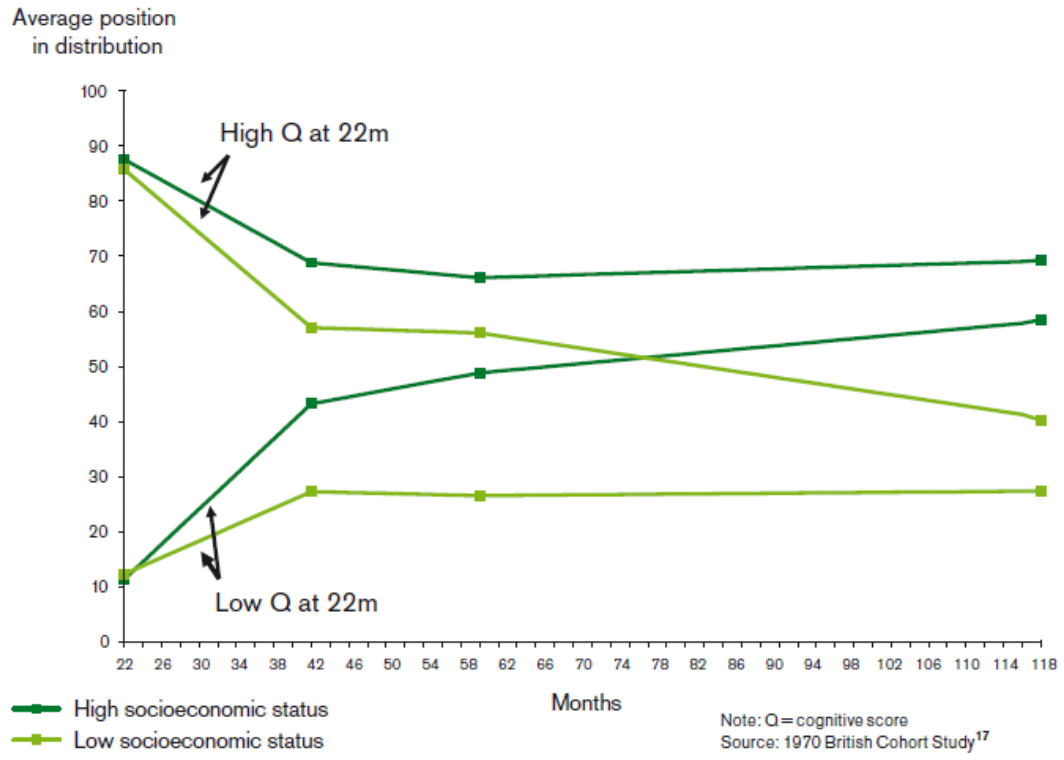
So, for each of these areas what does Coventry need to address?

[31] Department of Health. July 2011. Healthy Lives Healthy People: update and way forward.
[32] UCL Institute of Health Equity. 2010. Fair Society, Healthy Lives. The Marmot Review

Importance of early years

The Marmot Review stated that 'action to reduce health inequalities must start before birth and be followed through the life of the child. Only then can the close links between early disadvantage and poor outcomes throughout life be broken'. Figure 3.1 shows that the advantage of being born with a high IQ is wiped out if the child grows up in a disadvantaged household, so that by the age of 7 he/she is being outperformed by children with low IQs from more advantaged backgrounds.

Figure 3.1: Inequality in early cognitive development of children in the 1970 British Cohort Study, at ages 22 months to 10 years



Source: Marmot Review 2010

What Coventry can do

Initiatives to promote health and wellbeing should start in pre-conception, with strategies to reduce teenage pregnancy and to prevent uptake of smoking in teenagers. This should be followed by lifestyle initiatives during pregnancy, such as smoking cessation services to help pregnant smokers quit and guidance on healthy diet and weight during pregnancy. Breastfeeding should be promoted for its health benefits to both mother and child, as it is associated with reduced risk of breast cancer in the mother, and reduction in gastroenteritis, respiratory infections, middle ear infections and necrotising enterocolitis in the baby[33]. Breastfeeding is also

[33] UNICEF UK. 2012. Preventing disease and saving resources: the potential contribution of increasing breastfeeding rates in the UK policy document. http://www.unicef.org.uk/Documents/Baby_Friendly/Research/Preventing_disease_saving_resources.pdf

associated with a higher IQ in the baby. It has been estimated that if the number of breast fed babies rises by 1% this could lead to a small increase in IQ that across the entire population, could result in more than £278 million gains in economic productivity annually[34]. Breastfeeding also reduces the rate of Sudden Infant Death Syndrome.

Giving every child the best start in life is crucial to reducing health inequalities across the life course. The foundations for virtually every aspect of human development, physical, intellectual and emotional, are laid in early childhood. What happens during these early years (starting in the womb) has lifelong effects on many aspects of health and well-being, from obesity, heart disease and mental health, to educational achievement and economic status. To have an impact on health inequalities we need to address the social gradient in children's access to positive early experiences. Later interventions, although important, are considerably less effective where good early foundations are lacking.

As Figure 3.1 shows, children who have low cognitive scores at 22 months of age but who grow up in families of high socioeconomic position improve their relative scores as they approach the age of 10, while those with high scores at 22 months in families of low socioeconomic position worsen. The Marmot Review recommended that in order to address these inequalities we need to increase the overall proportion of expenditure in the early years, and support families to achieve improvements in early child development, including:

- Giving priority to pre and post-natal interventions that reduce adverse outcomes of pregnancy and infancy.
- Providing paid parental leave in the first year of life with a minimum income for healthy living.
- Providing routine support to families through children's centres and key workers, delivering parenting programmes to meet social need via outreach.
- Developing programmes for the transition to school.

We need to provide good quality early years education and childcare proportionately across the gradient. This provision should be:

- Combined with outreach to increase the take-up by children from disadvantaged families.
- Provided on the basis of evaluated models and to meet quality standards.

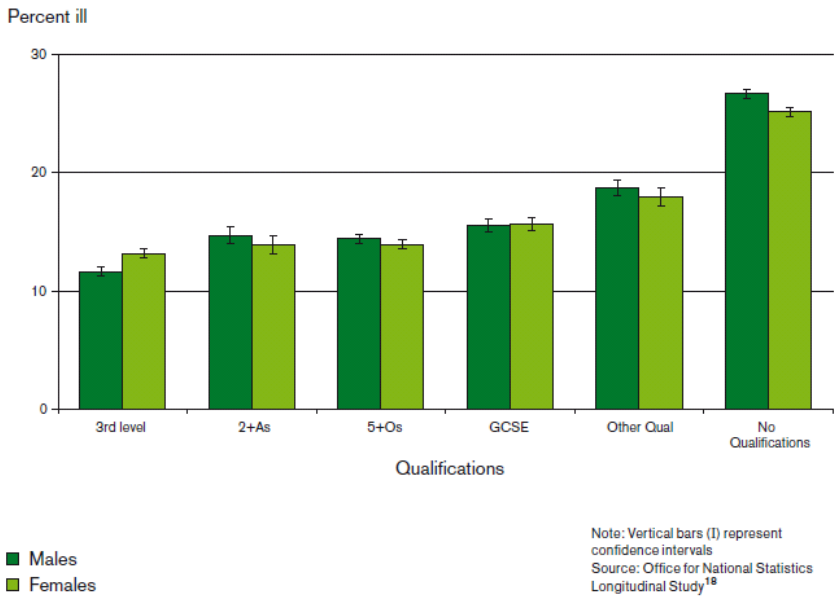
Delivery of the universal Healthy Child Programme, which involves, GPs, maternity services, the Family Nurse Partnership, Health Visitors, children's centres, and nursery education plays a part in supporting parents to promote optimum development in the early years of life. By giving every child born in Coventry the best possible start in life, we will ensure that children and young people can have positive and fulfilling lives that are safe from harm and their level of achievement, health and wellbeing improves.

[34] UNICEF UK. Preventing disease and saving resources: the potential contribution of increasing breastfeeding rates in the UK policy document. www.unicef.org.uk/breastfeeding

Education

Attainment at school can have a major effect on the life course. Those who struggle at school are more likely to become NEETs and teenage parents, while those who do well are more likely to attain well paid employment. Education level is linked with healthy lifestyle and low illness and mortality rates. Research has shown that those with the lowest levels of education are most likely to have multiple lifestyle risks[35]. The World Health Organisation (WHO)[36] recommends compulsory primary and secondary education for all children, regardless of ability to pay, to reduce health inequalities because of its strong link with life expectancy and infant mortality around the world. Figure 3.2 shows that people with no educational qualifications have double the limiting illness of those with degrees.

Figure 3.2: Standardised limiting illness rates in 2001 at ages 16–74, by education level recorded in 2001



Source: Marmot Review

[35] King's Fund. 2012. Clustering of unhealthy behaviours over time.
[36] World Health Organisation. 2008. Closing the gap in a generation. Health equity through action on the social determinants of health

What Coventry can do

The vision for Coventry Children's Plan 2011-2014 states "We want Coventry children and young people to have supportive families, live safe from harm, their level of achievement, health and wellbeing improves and they have positive and fulfilling lives".

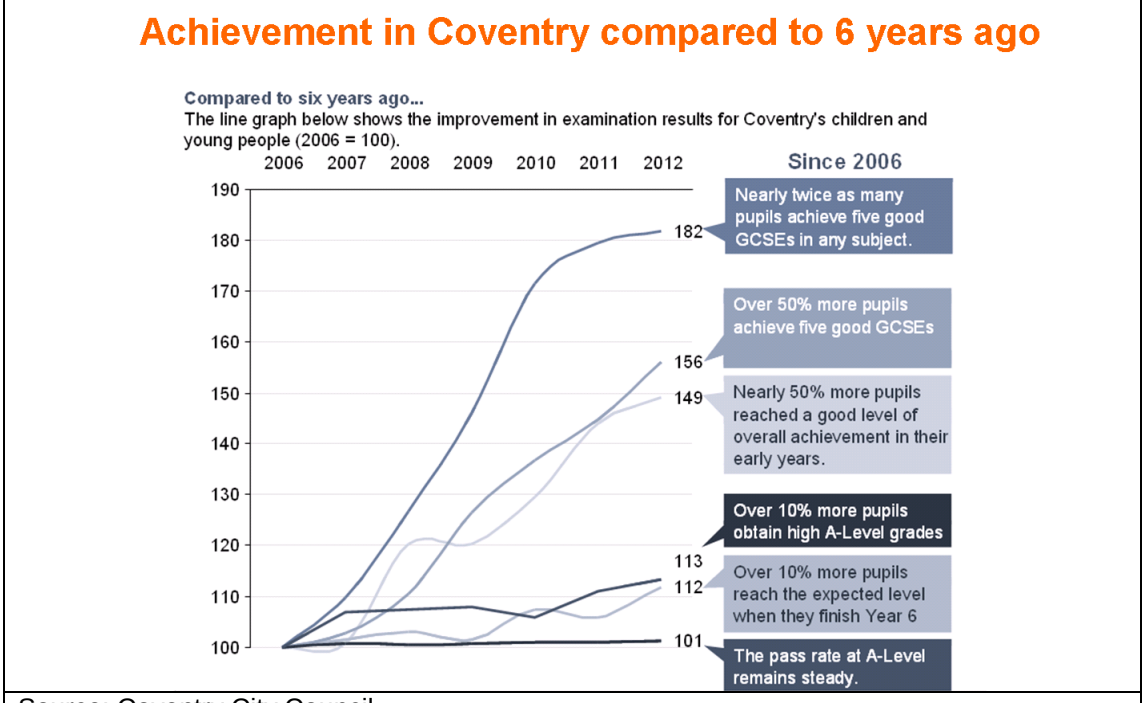
Primary Education

There are too many primary schools in the city falling short of the required standard of providing children with a good or outstanding educational experience. This was highlighted by Her Majesty's Chief Inspector's OFSTED Annual Report (November 2012) that ranked Coventry Local Authority last of all Local Authorities in England. There are too many schools classed as 'satisfactory' or 'requiring improvement' with fewer primary school children in 'good' or 'outstanding schools' (42%). This figure had risen to 64% by the end of June 2013. However, Coventry remains in the bottom 20% nationally of all local authorities. Attainment measures are not being met at Key Stage 1 and 2. The report identified that more able children were not doing well enough. This is a key challenge for schools in the city. The Local Authority is working with schools in implementing an improvement plan that is a school to school led system, focused on teaching and learning, which delivers faster improvement.

Secondary Education

The 2012 year's achievement includes the fact that 78% of secondary schools, 75% of special schools and 63% of post-16 provision are good or outstanding. There has been a great improvement in academic results in Coventry's schools and these are shown in Figure 3.3.

Figure 3.3: Recent achievements in education in Coventry



Source: Coventry City Council

Employment

Employment has a strong beneficial impact on health across all social groups. The effect is stronger for some groups than others, and is greater for men than for women[37]. Although ill-health is a common cause of unemployment[38], unemployment is also associated with mental and physical ill-health, increased use of health services, and increased mortality[39]. Some studies indicate that redundancy may increase mortality risk by 50% or even 100%[40,41]. Job characteristics, which are associated with work-related ill-health, include temporary or unstable employment, long hours, jobs with low control and high demands, and low social support [39].

The number of employees in Coventry was estimated to have fallen by 4,000 between 2008 and 2010 to about 143,000. The most important employers in Coventry are the public services, including education and health, which employ approximately 45,750 people (32% of all employment), while manufacturing only makes up about 11% of employment[42]. The official unemployment rate estimates the number of people who are out of work and have actively sought work in the last 4 weeks[43]. It is estimated that 13,900 Coventry residents were unemployed in the period October 2010 to September 2011, which is a higher unemployment rate (9.4%) of the economically active population compared to England (8.0%) [37].

What Coventry can do

Coventry City Council's Jobs Strategy (2011) has three integrated work streams. **'**Securing job opportunities' facilitates investment and growth by introducing innovative high profile projects, and marketing Coventry as the right place to invest and grow. 'Helping people to get jobs' offers targeted help to jobseekers to obtain work that matches their skills. 'Helping people improve their skills' involves working with universities, colleges and businesses to equip people with the skills that investors need[44]. The council also provide an Access to Apprenticeship programme, which is a 3 week programme, designed and delivered by Coventry City Council to help young people aged 16-24 who would like an apprenticeship, but need extra support in gaining one. Work areas available include business administration, teaching, finance, catering, IT, horticulture, building maintenance and craft

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[37] G Waddell and AK Burton (2006). *Is Work Good for your Health and Well- Being?* London: TSO. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/214326/hwwb-is-work-good-for-you.pdf

[38] C Mclean, C Carmona, S Francis, C Wohlgemuth and C Mulvihill (2005). *Worklessness and Health: What do we know about the causal relationship? UK National Health Service Health Development Agency Report, 2005, 1.* http://www.nice.org.uk/niceMedia/documents/worklessness_health.pdf

[39] Improvement and Development Agency. 2009. Valuing Health: developing a business case for health improvement Final report http://www.apho.org.uk/resource/item.aspx?RID=83993

[40] JK Morris, DG Cook and AG Shaper (1994). Loss of employment and mortality. *British Medical Journal 308*, 1135-9.

[41] Jin, R. L., Shah, C. P., & Svoboda, T. J. (1995). The impact of unemployment on health: A review of the evidence. *Canadian Medical Association Journal 153*(5), 529-540.

[42] Coventry City Council. The Coventry Economy Key Information. May 2012 http://www.coventry.gov.uk/download/downloads/id/5603/Unemployment%20(JSA)%20-%20trends

[43] Measured by the Labour Force Survey

[44] Coventry City Council http://www.coventry.gov.uk/info/343/employment_and_training_initiatives/1204/coventry_jobs_strategy

apprenticeships. The Local Enterprise Partnership (LEP) will have a key strategic role in supporting the right developments and attracting organisations to Coventry and the sub region that will provide sustainable quality jobs.

Planning and Transport

Transport systems, while essential for modern life can have serious health implications, especially for people living in more deprived parts of the city[45]. Long-term exposure to air pollutants from road traffic can decrease life expectancy by an average of six months, due to an increased risk of cardiovascular morbidity and mortality. It is also associated with a number of adverse outcomes in pregnancy, including low birth weight, intrauterine growth retardation, and an increased risk of chronic diseases in later life. Transport systems also generate noise pollution, which can adversely affect the cardiovascular system (increasing blood pressure and myocardial infarction), mental health status, and school performance in children. Road traffic accidents (RTAs) are also a major influence on morbidity and mortality. Although there is an overall decline in RTAs these disproportionately affect vulnerable road users, such as pedestrians and cyclists. Most pedestrian injuries occur on built-up roads in towns and cities, and the risk is greatest when car use is at its highest. The greatest risk for cyclists is associated with crossing junctions.

However, transport systems can have positive health effects as well, especially when they promote sustainable active travel, such as walking and cycling, which are associated with a number of health benefits. These include improved mental health, a reduced risk of premature death, and prevention of chronic diseases such as coronary heart disease, stroke, type 2 diabetes, osteoporosis, depression, dementia, and cancer[46].

The present transport system in the UK has led to increased car use which has suppressed walking and cycling levels in the UK. This has led to an increase in risk of injury for pedestrians and cyclists and made it difficult to use active forms of travel, even when destinations are near. Busy roads and poor infrastructure for active travel can lead to community severance[46].

Public transport has also suffered because of the dominance of car travel. There is low uptake of bus services in the UK because of high levels of congestion along routes, declining standards due to chronic underinvestment, and increasing costs for passengers. The cost of travelling by rail in the UK is also high compared to the cost of car use, and the demand for services often exceeds capacity at peak periods of travel. The increased use of public transport is desirable because it is a sustainable option that produces lower levels of emissions per person at average occupancy. Incorporating walking and cycling as part of the journey helps achieve the recommended levels of daily physical activity. Public transport is often the only means of transport for the disadvantaged who cannot afford a car [46].

[45] British Medical Association. 'Healthy transport = Healthy lives'. July 2012
[46] British Medical Association. 'Healthy transport = Healthy lives' July 2012

What Coventry can do

Planning and land-use policies can create an environment that offers everyone (including people whose mobility is impaired) convenient, safe, well-designed and direct access to workplaces, green spaces, homes, schools and other services via active travel and public transport networks. Green spaces and access to nature should be provided, to encourage social contact and integration, and physical activity. Cycling and walking can be encouraged by reducing congestion and improve usability of roads by pedestrians and cyclists through reallocation of road space, restricting motor vehicle access, road-user charging schemes, traffic-calming and traffic management (including 20 miles per hour speed limits)[46]. NICE recommends that transport planners should ensure pedestrians, cyclists and users of other modes of transport that involve physical activity are given the highest priority when developing or maintaining streets and roads[47].

Public transport planning should include adequate provision to meet the needs of users, including elderly and disabled people and should make services affordable to all to ensure that it represents an effective alternative to the car. To maximise the potential for car-free travel, facilities should be improved for combining active travel with local and longer-distance public transport[48].

Coventry has already made the entire city centre within the Ring Road into a 20mph zone, is planning a number of new shared-space junctions in the city centre to encourage more active travel. The new cycling and walking route from Coventry station to the city centre and the pedestrianisation of Broadgate aims to improve the environment and increase active travel. The Cycle Coventry project has been awarded a government grant of over £6 million to improve cycle routes in some parts of the city. It will also offer cycle training to people who are new to cycling, and information to local residents and businesses.

[47] The National Institute for Clinical Evidence (NICE) *'Guidance on promoting and creating built or natural environments that encourage and support physical activity'.* January 2008. www.nice.org.uk/guidance/PH8

[48] British Medical Association. 'Healthy transport = Healthy lives' July 2012

Lifestyle

We have talked about the impact of the environment on a population's health. The final and biggest challenge is lifestyle and I will explore this is more detail in next year's Annual Report. However, it is important to highlight here some important lifestyle choices and their impact on health.

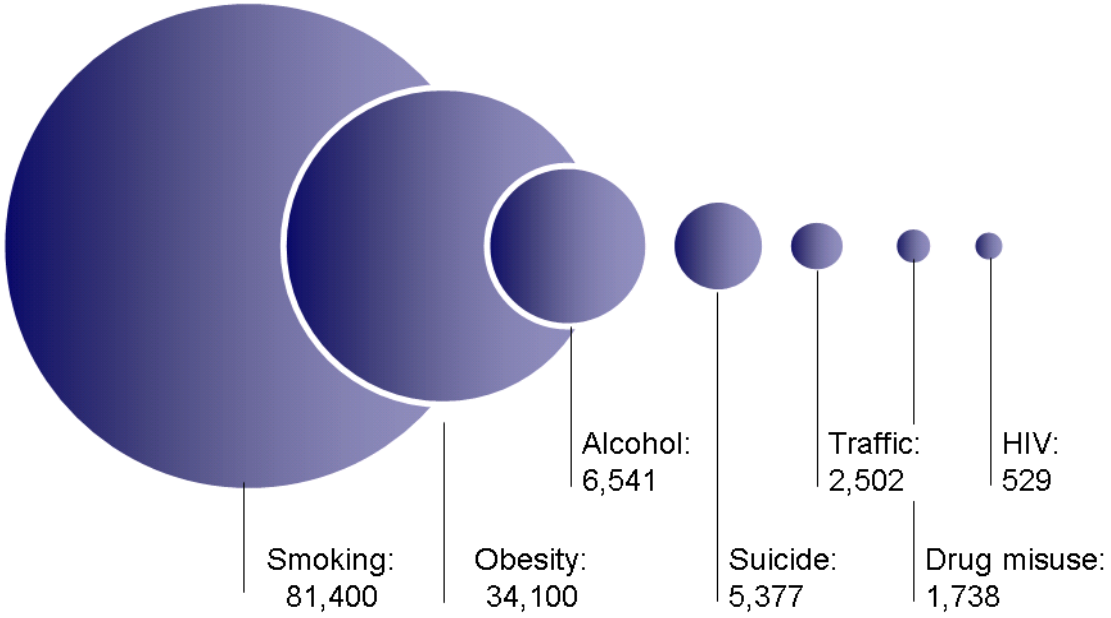
The World Health Organisation (WHO)[49] estimated that almost 50% of the burden of disease in industrialised countries was due to lifestyle. They outlined four unhealthy behaviours: smoking, excessive consumption of alcohol, poor diet and low levels of physical activity. They are also linked with high cholesterol levels, obesity and being overweight.

Smoking is the most important cause of preventable death, as shown in Figure 3.4. It contributes more to inequalities than any other lifestyle factor. Smoking is almost twice as high among people with routine or manual jobs as among those with professional or managerial jobs. Certain minority ethnic groups have higher smoking prevalence rates, for example almost twice as many Bangladeshi men smoke compared to the national average[50]. 25% of Coventry residents still smoke. Two thirds of smokers started when they were aged less than 18, the legal age of sale. Stopping smoking is closely linked with extra years of life: stopping at 30 results in 10 years of life gained, but even stopping aged 60 will result in 3 years of life gained.

It is estimated that 26% of Adults in Coventry are obese. Obesity is linked to sedentary lifestyles and poor diet or overeating. Childhood obesity is linked to deprivation as shown in Figure 3.5. Moderate obesity reduces life expectancy by about 3 years, and severe obesity can shorten a person's life by 10 years. This 10 year loss is equal to the effects of lifelong smoking[51]. One of the key healthy eating messages is to eat five portions of fruit or vegetables per day but 74% of Coventry adults do not meet this guidance. One of the key challenges going forward is to address how we ensure that these key health messages are presented to the public using a variety of methods that will support changes in behaviour.

[49] World Health Organization (2002). The World Health Report 2002: Reducing risks, promoting healthy life. Geneva: World Health Organization. www.who.int/whr/2002/en/ (cited in King's Fund 2012. Clustering of unhealthy behaviours over time.)
[50] Improvement and Development Agency. 2009. Valuing Health: developing a business case for health improvement Final report
[51] Medical Research Council. 2009 http://www.mrc.ac.uk/Newspublications/News/MRC005722

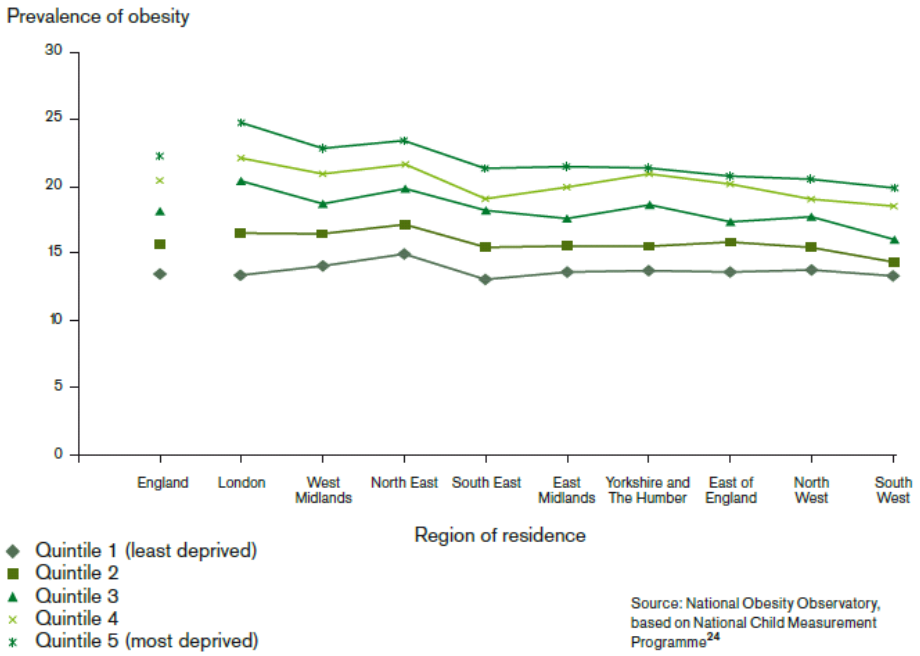
Figure 3.4: Causes of preventable deaths in England in 2009



References:
1. ASH Factsheet, Smoking Statistics: illness & death, October 2011 (http://ash.org.uk/files/documents/ASH_107.pdf) *NB area represents value*

Source: ASH[52] http://www.ash.org.uk/localtoolkit/docs/ShortPres.ppt#264,3,Slide 3

Figure 3.5: Prevalence of obesity (>95th centile), by region and deprivation quintile, children aged 10–11 years, 2007/8



Source: The Marmot Review 2010

[52] ASH local toolkit. http://www.ash.org.uk/localtoolkit/docs/ShortPres.ppt

Keeping active is another important healthy lifestyle, as active people live substantially longer than inactive ones, and 89% of Coventry adults do not meet recommended levels. Physical activity has health benefits independently of its ability to reduce the risk of obesity. Walking and cycling are effective means of increasing levels of physical activity into everyday life, at little personal or societal cost[53]. A recent study showed that moderate exercise (75 minutes of brisk walking each week) was associated with 1.8 extra years of life, while achieving the 150 minutes of brisk walking recommended by the WHO was associated with 3.4 to 4.5 extra years.[54]

21% of Coventry residents drink at levels that increase health risk, and 4% to 6% of residents drink at high risk levels. Alcohol is linked to a range of serious chronic and acute conditions such as liver disease, cancer, strokes, hypertension, neurological and psychological disorders[36]. Heavy drinking can reduce life-expectancy by about 8 years and alcoholism by about 10-12 years[55].

Effect of combined lifestyle factors

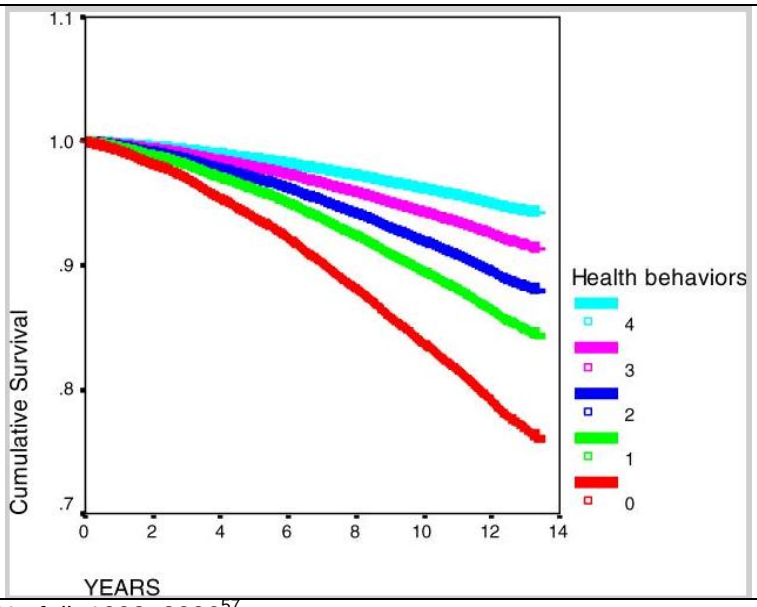
There has been a lot of research on the effect of individual lifestyle factors, however recently there has been more interest in their combined effect. A study[56] has found that people with a combination of four unhealthy behaviours results in a person having the same chance of dying as someone 14 years older with none of the unhealthy behaviours. The four unhealthy behaviours studied were: smoking, not being physically active, excessive alcohol intake and lack of fruit and vegetable intake. The study found that the more unhealthy behaviours a person had the greater their risk of death. Compared with people with no unhealthy behaviours:

- People with one unhealthy behaviour had just over a third (39%) more risk.
- People with two unhealthy behaviours had twice the risk.
- People with three unhealthy behaviours had two and a half times the risk.
- People with four unhealthy behaviours had four times the risk.

The difference in survival is shown in Figure 3.6

[53] British Medical Association. 'Healthy transport = Healthy lives' July 2012
[54] Moore et al 2012 Leisure Time Physical Activity of Moderate to Vigorous Intensity and Mortality: A Large Pooled Cohort Analysis. PLoS Med 2012;9:e1001335 http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1001335
[55] New York Time Health Guide. Alcoholism and Alcohol Abuse http://health.nytimes.com/health/guides/disease/alcoholism/possible-complications.html
[56] KT Khaw, N Wareham, S Bingham, A Welch, R Luben, and N Day Combined Impact of Health Behaviours and Mortality in Men and Women: The EPIC-Norfolk Prospective Population Study. PLoS Med. 2008 January; 5(1): e12.

Figure 3.6: Survival Function According to Number of Health Behaviours in Men and Women Aged 45–79 Years without Known Cardiovascular Disease or Cancer, Adjusted for Age, Sex, Body Mass Index and Social Class,



Source: EPIC-Norfolk 1993–2006[57]

Clustering of unhealthy lifestyles

Further research[58] of the same four health behaviours has shown that the health behaviours tend to be clustered by social class, education level and deprivation. There is a consistent socio-demographic gradient with men, younger age groups, lower social classes, and people with lower levels of education being more likely to exhibit multiple lifestyle risks.

The distributions of health behaviour have changed between 2003 and 2008, generally improving. Although the proportion of people reporting three or four unhealthy behaviours has declined significantly from 33% in 2003 to 25% in 2008, the reductions are mainly in higher socio-economic and educational groups, leading to widening health inequalities. People with no qualifications are five times more likely than educated people to engage in all four poor behaviours (which is an increase since 2003). Men in the unskilled manual are three times more likely to have 4 risk behaviours than professional men. The patterns were similar for women.

[57] KT Khaw, N Wareham, S Bingham, A Welch, R Luben, and N Day Combined Impact of Health Behaviours and Mortality in Men and Women: The EPIC-Norfolk Prospective Population Study. PLoS Med. 2008 January; 5(1): e12.

[58] King's Fund. 2012. Clustering of unhealthy behaviours over time.

What Coventry can do

It's never been easier to access NHS Stop Smoking support in Coventry. There are a number of providers delivering services at over 100 locations across the city and, with this support; smokers are four times more likely to quit smoking for good. In order to reduce the number of smokers it is vital that the city focuses on delivering a range of tobacco control measures. Increasing the availability of our stop smoking services must be combined with reducing levels of illicit tobacco, enforcing the smoke-free law; encouraging people to live in smoke-free homes and empowering young people not to start smoking in the first place.

The measures that Coventry is undertaking to combat obesity are listed in the Healthy Weight section of this report. Coventry also runs programmes which promote both healthy eating and active lifestyle such as One Body One Life (OBOL). The development of attractive pedestrian and cycle routes, to link everyday destinations, described in the transport and planning section, will also promote physical activity such as walking and cycling. Integrated walking and cycling programmes in local transport plans can get more people active and deliver significant benefits[59]

Programmes to reduce hazardous alcohol consumption may include several components such as increased enforcement of licensing and underage alcohol sales legislation, other restrictions on alcohol sales, and community events to reinforce messages regarding alcohol consumption. Research indicates that the more successful education programmes incorporate life-skills components, use peer educators, and focus on changing social norms relating to alcohol use[60].

As described above many people have multiple unhealthy behaviours. Making Every Contact Count (MECC) is a programme targeted at all health lifestyles. It has been adopted by Coventry NHS and the local authority. MECC involves training frontline staff to raise healthy lifestyle issues opportunistically in relation to a client's reason for seeking help. This is often known as brief advice (lasting 3 to 5 minutes) and involves giving information about the importance of behaviour change and sign-posting to appropriate lifestyle services for support. Research has shown that 1 in 8 people respond to brief advice about alcohol intake by reducing their drinking behaviour, and 1 in 20 people go on to quit smoking following brief advice[61].

[59] Department of Health and Department of transport *Active Travel Strategy.* 2010 http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_113104.pdf

[60] Improvement and Development Agency. 2009. Valuing Health: developing a business case for health improvement Final report

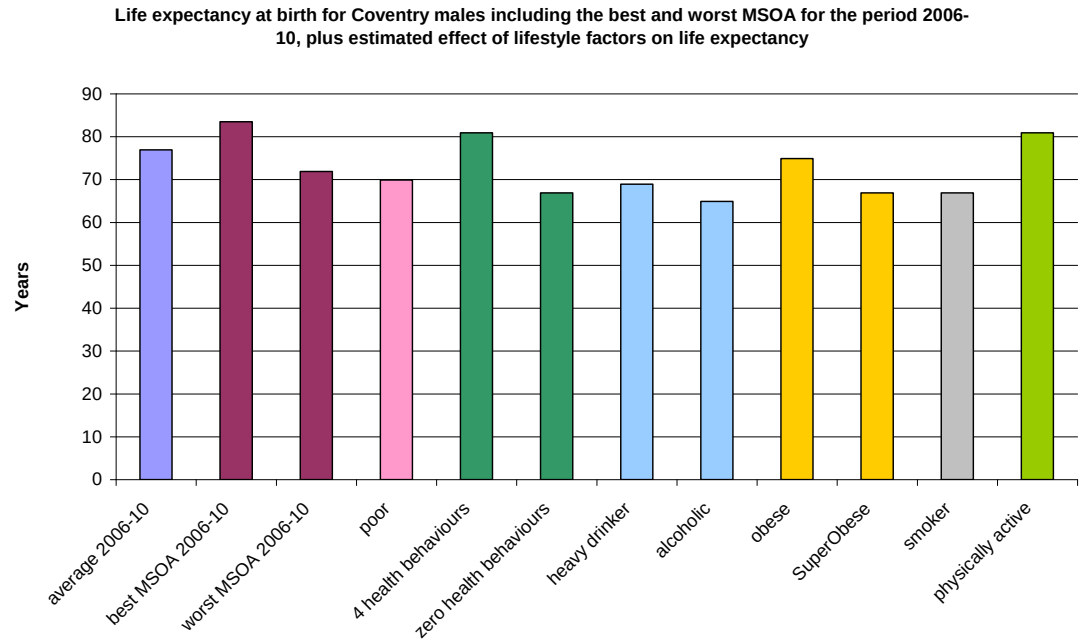
[61] Making Every Contact Count. Insight into patient and staff attitudes to receiving and delivering healthy lifestyle advice. Key Findings. NHS Local learning http://learning.nhslocal.nhs.uk/sites/default/files/insight_key_findings_final.ppt

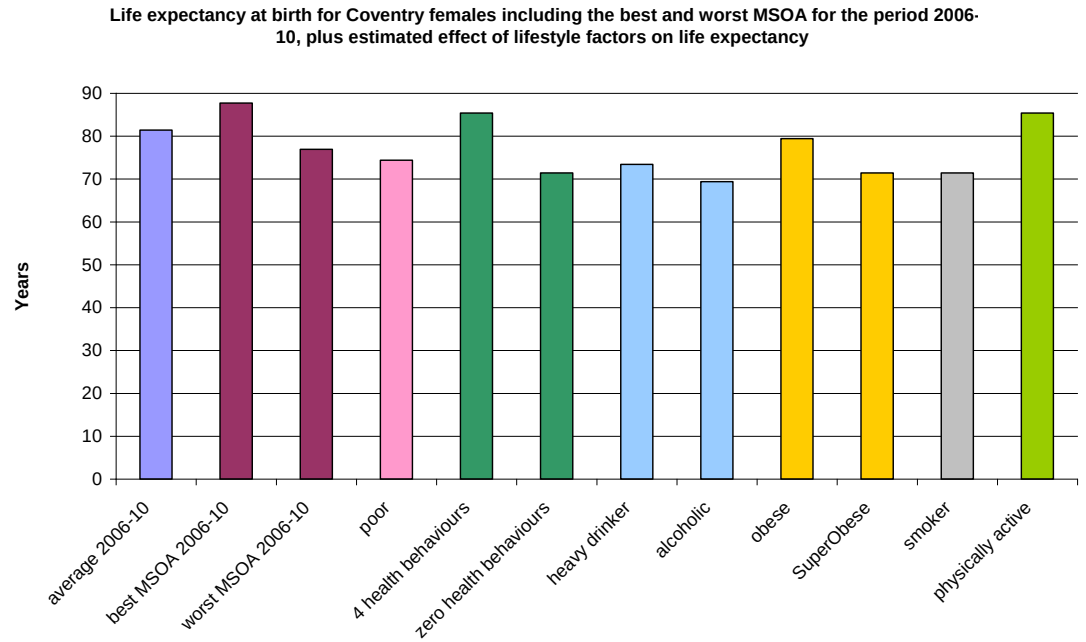
Life expectancy of babies born in Coventry today

The average life expectancy for a baby boy born in Coventry today (based on combined data from 2006-2010) is 76.9 years, which is significantly lower than the national life expectancy of 78.3. There is geographic variation across Coventry with the lowest life expectancy only 71.9, but the best is 83.5, which is better than the national life expectancy. For a baby girl the life expectancy at birth in Coventry is 81.4 years, which is significantly lower than the female life expectancy at birth for England of 82.3 years. Again there is geographic variation from the lowest of 76.9 years to best of 87.7 years; again the best area in Coventry has a higher life expectancy than England.

Figure 3.7 shows the average life expectancy for a baby boy or girl born in Coventry, followed by the best and worst life expectancy predicted for different geographic areas of Coventry, as measured by Middle-layer Super Output Area data (MSOA). These areas have a minimum population of 5,000 people. This is followed by the life expectancies that are calculated when the life years gained or lost due to various lifestyle choices/behaviours (alcohol consumption, smoking, diet and physical activity) that the baby may adopt over his or her lifetime are added or subtracted from their average life expectancy.

Figure 3.7: Life expectancy at birth for Coventry males and females (including best and worst MSOA) for the period 2006-10 and estimated effect of lifestyle factors.





Source: APHO and sources referenced in report

What do these graphs tell us?

This is not just a matter of personal choice and responsibility. This goes to the very heart of inequalities and the wider social determinants of health. The challenge is to create an environment where people are better able to make those choices. These serious health inequalities do not arise by chance, and they cannot be attributed simply to genetic makeup, 'bad', unhealthy behaviour, or difficulties in access to medical care, important as those factors may be. Social and economic differences in health status reflect, and are caused by, social and economic inequalities in society.

Summary of Part 3

This final part of the report has looked into the future and identified the key health challenges for the city. These are a combination of the broader social determinants of health such as education, transport, employment and those that can be regarded as the big public health issues of the 21st century that are related to human behaviour in relation to lifestyle choices and preventable illness and early death, for example smoking, obesity, alcohol etc.

The evidence suggests that there is much we can do as a City to mitigate against the impact on health in the following areas:

- Giving every child born in Coventry the best possible start in life.
- Improving Educational attainment.
- Providing Good quality employment.
- Designing for health improvement through good planning and transport systems.
- Supporting behavioural change that empowers individuals and communities to make positive choices about their health.

Conclusion

In this Annual Report, I have looked back over the past 42 years and described the changing populations' health of the city. In this period, the city's health has improved, life expectancy has increased for both men and women, infant mortality has been greatly reduced and many previous infectious diseases have been contained.

The newly published Public Health Outcomes Framework for the city allowed me to describe the health of the city using multiple health indicators. There are some areas where we continue to perform well, for example childhood immunisations and others where significant challenges remain. Overall, the health status of the people of Coventry in 2012, compared to other parts of the West Midlands and the rest of England, is poor.

In the final part of this report I looked to the future and pondered on what the health of the city could look like, if were able to match the best outcomes in England. I have looked at some of the key health challenges, and the current evidence as to how those challenges could be addressed or mitigated against. If this was achieved the health of the city forty years from now would be much improved.

We should focus on what we can change and what is within the city's gift to change. This report has made it clear that there is much that is being done, but there is still more to be done, if we want to improve the health, wellbeing and overall quality of life of everyone in the city across the whole course of one's life.

The Coventry Health and Wellbeing Board have recently published its Joint Health and Wellbeing Strategy. The strategy is underpinned by the Marmot principles to address inequalities across the life course. This is to be welcomed, as the solution for addressing such longstanding inequalities is through a system wide approach. The Health and Wellbeing Board are now in a position to provide that system leadership.

Coventry has joined the UK Marmot Network, established by the Department of Health. This presents the city with an opportunity to accelerate action on inequalities by drawing on the wealth of national and international knowledge and experience of the Marmot team, as well as the shared learning from the 7 other UK sites and the broader European Marmot Network.

In a perverse way, the prolonged economic downturn and the reduction of spending in public services, has created the opportunity to look at different service models in the future. As the public sector we will not be able to provide the same level of service for everyone as we did before. This means ensuring that the most vulnerable in our city are taken care of, but also using this as an opportunity to empower and enable local communities to take control of their lives, through strength based approaches. There is also need for a radical shift as to the way that public services are delivered. As communities become empowered, services will have to change as a result, this will mean a 'step back' and a shift from the more traditional organisationally led and professionally led model, to one that is co-designed, co-produced and potentially delivered by communities themselves.

During the report I have highlighted a number of areas that we need to continue to work and focus on moving forward, by doing so we will improve the health of the people of the city. Below I list my recommendations for improving the health and wellbeing of the people of Coventry.

Recommendations

Coventry is a Marmot City and has given a commitment to accelerated action on addressing the inequalities in the City. The City Council, the Coventry Health and Wellbeing Board through its Joint Health and Wellbeing Strategy, the Coventry and Rugby Clinical Commissioning Group and all stakeholders have committed to this goal. Work has started but there is more that can be done. The City Council and partners have been reviewing their contributions to improve life chances for the people of Coventry.

My recommendations acknowledge that work and align it to the 6 key objectives from the Marmot review 'Fair Society, Healthy Lives' (2010).

1. **Give every child the best start in life.**

Coventry commissioners and providers of children's early year's services need to give greater emphasis to early intervention and support in the first years of life, where all the evidence informs us we can expect a greater return in terms of improving the life chances of that child. Therefore commissioners and providers need to ensure that they are commissioning and delivering evidence based models that will deliver the right outcomes for children. This will mean:

- Reducing inequalities in the early development of physical and emotional health, and cognitive, linguistic, and social skills so that we can measure improvements in a child's readiness for school.
- Ensuring high quality maternity services, parenting programmes, childcare and early year's education to meet need.
- There is a need to improve readiness for school through specific initiatives such as encouraging the take up of 2 year old nursery places and achieving good foundation stage results.
- There is an urgent need to improve educational attainment in primary schools and establish school improvement networks.

2. **Enable all children, young people and adults in Coventry to maximise their capabilities and have control over their lives.**

- We need commitment from local employers to support the NEET agenda by providing apprenticeships and other training opportunities.
- There is a need to improve the access and use of quality lifelong learning.
- The City Council should deliver and create the Coventry Apprenticeship and Skills Hub for young people aged 18-24 years- Youth Zone.

3. Create fair employment and good work for all.

- The key challenge in addressing inequalities in the city is to improve access to good jobs and reduce long-term unemployment across the social gradient in these austere times.
- We need to build on and support the work of the Local Enterprise Partnership, the City Deal and the City Council's 'Kickstart' programme. As these will be crucial in supporting local economic regeneration and local employment.
- We need to provide intensive support for workless households and families with complex social barriers to work, enabling positive lifestyle changes and the development of skills for work.
- We need to promote and help businesses to attain recognised high standards in their approach to employee's health and wellbeing via the Workplace Well Being Charter.

4. Ensure a healthy standard of living for all.

- The City Council has committed itself to supporting this aim by promoting the principal of a living wage for all its employees.
- This debate needs to be carried forward by the other economic forums that exist in the city, such as the Coventry Partnership, the Local Enterprise Partnership and others, with a view to working towards adopting a living wage for all people in Coventry. This would align with similar work started in London and York.
- We should ensure that the Job Shop is utilised as much as possible in Coventry. The Job Shop provides a range of support to unemployed and under-employed people in Coventry.

5. Create and develop healthy and sustainable places and communities.

- We need to improve community capital and reduce social isolation across society by building on the good community partnership working and developing further the asset based approach work started in the city by the City Council and its partners.
- There is a need to develop common policies as a city to reduce the scale and impact of climate change and health inequalities for example fuel poverty. The City Council should consider how it can work with all providers to improve the energy efficiency of the housing stock, as this will be an essential step to reduce the number of Coventry households in fuel poverty, mitigate climate change and bring associated health benefits. Therefore, we need to reduce the number of homes where people cannot afford sufficient heating. There is also a need to provide advice and practical solutions to reduce levels of fuel poverty in the city.
- Keeping physically active is a key protective behaviour in promoting physical and mental well-being. It will be important to implement the Coventry Sport Strategy in 2013 to support this aim.
- We need to create a coherent and safe cycle network that will link together the main residential areas, employment areas, local centres, railway stations and the city centre as part of the Cycle Coventry Project.

6. Strengthen the role and impact of ill-health prevention in Coventry.

- We need to prioritise prevention and early detection of those conditions most strongly related to health inequalities, through improving the quality and management of primary care services in the city. The CCG will be identifying poor performers, developing a local performance dashboard and reviewing ways to engage to improve performance.
- Continue to roll out and expand the 'making every contact count' (MECC) programme in the city.
- Continue to promote the NHS Health Checks programme in the city.
- Continue to promote the uptake of and reduce the variation in the screening and immunisation programmes in the city.
- Continue to promote and improve access to lifestyle risk management programmes e.g. smoking cessation services, particularly in our most susceptible groups. To halt the rise of alcohol related admissions in Coventry, the CCG will be implementing an Alcohol Liaison Nurse Pilot, as well as looking at ways of identifying and targeting repeat attenders at A&E.

There are no quick fixes. However, a prolonged and concerted focus on those areas we know we can make improvements in, I believe would contribute to improving the health of everyone in the city and enable us to look towards a healthier future for ourselves, our children and our children's children.